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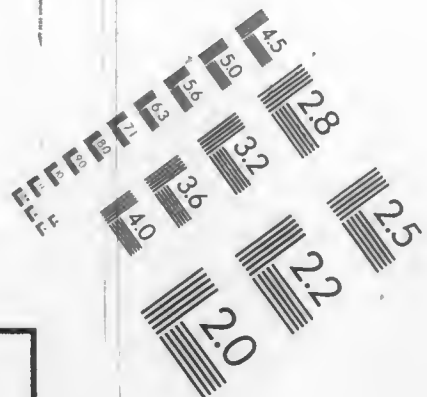


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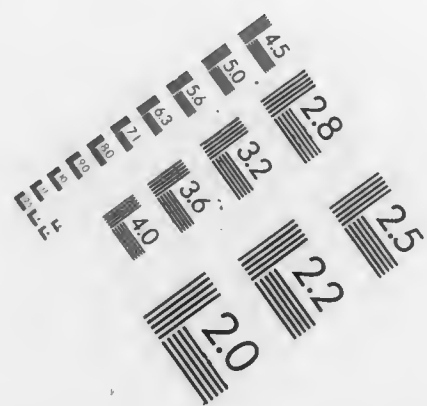
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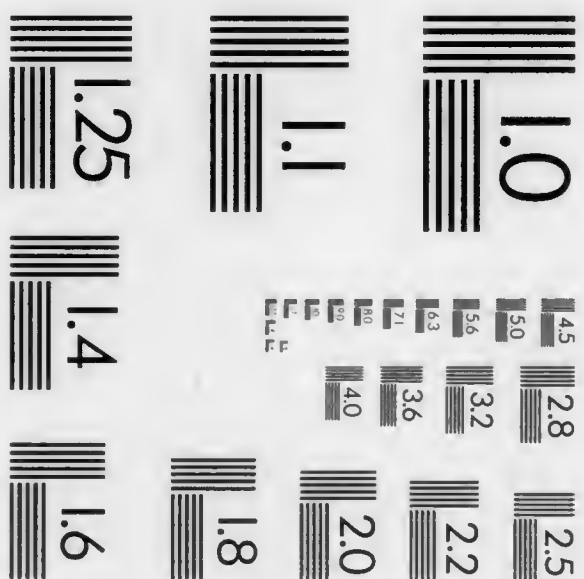
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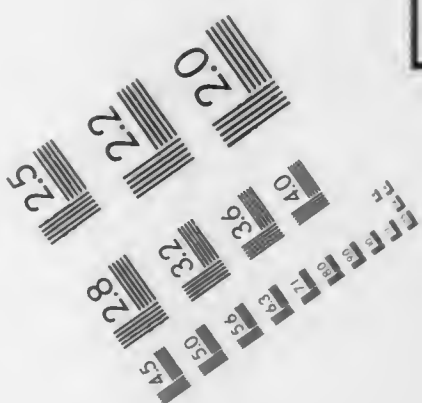
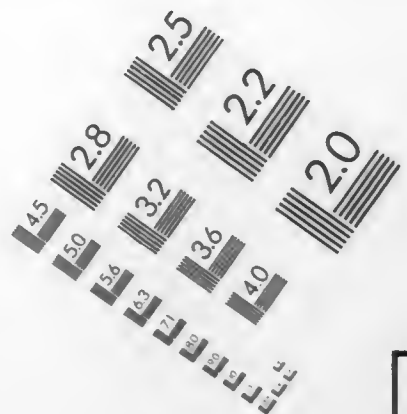
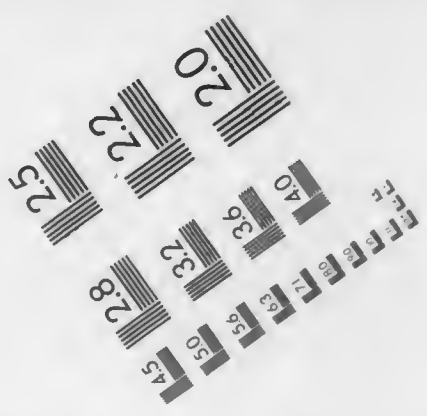
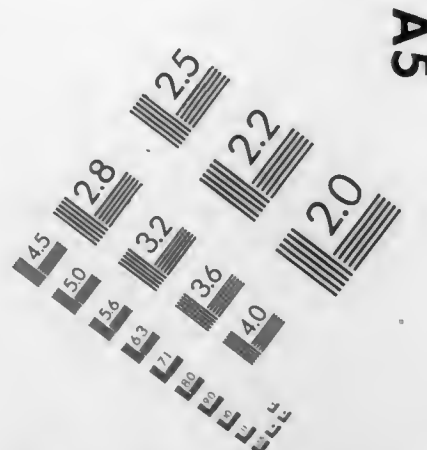
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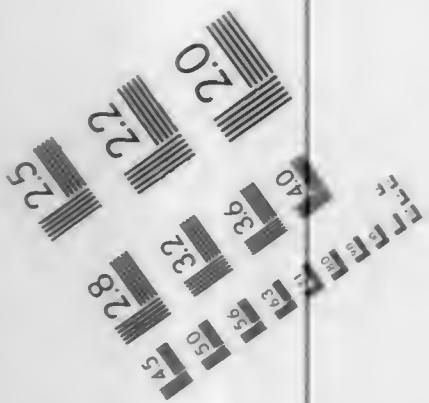
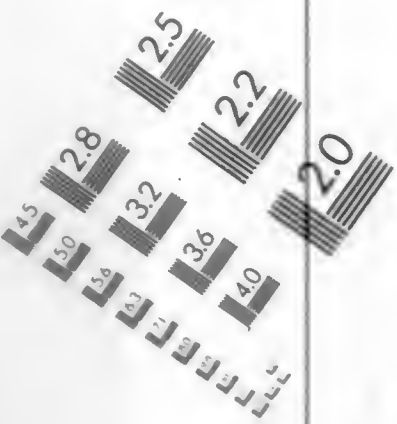
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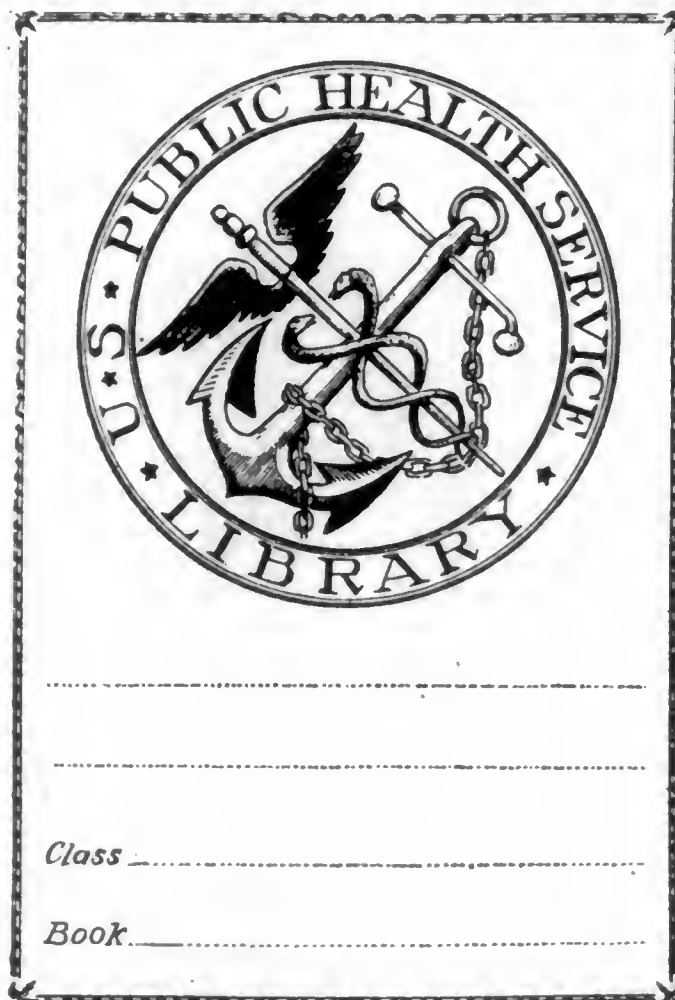
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STATE BOARD OF HEALTH OF FLORIDA

TWENTY-SEVENTH

ANNUAL REPORT

OF THE

State Board of Health
of Florida

1915

APPROVED BY THE BOARD IN ANNUAL SESSION, FEBRUARY 8, 1916

JACKSONVILLE, FLORIDA

THE PALATKA NEWS
PALATKA, FLA.
1916

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LETTER OF TRANSMITTAL.

Palatka, Florida, January 1, 1916.

Hon. Park Trammell,

Governor of the State of Florida,
Tallahassee, Florida.

Dear Sir:

I am pleased to hand you herewith the twenty-seventh annual report of the State Health Officer, comprising a complete statement of the activities of the State Board of Health during the year 1915, together with a full account of receipts and expenditures for that period. You will note that the report has been made as brief as possible, being limited to a concise recital of the important work of the Board rather than to a discussion of scientific topics. The entire document merits thoughtful consideration and I request that you give it a careful reading.

All of the former energies of the Board, in the direction of health betterment of the people have been continued and in addition many important new advances have been made. In fact, I feel that the new features of the work which have been inaugurated during the past year will be far-reaching and will ultimately prove to be of much lasting benefit to the citizens of our State.

You will find in the report of the State Health Officer a summary of the general health conditions which have prevailed, and which, I am glad to say, seem to show a material improvement over previous years. Diphtheria seems to have been slightly more prevalent than in 1914, but no serious outbreak has occurred and the majority of the cases have been of a very mild type. Smallpox and typhoid fever show a decided decrease. More detailed information as to the prevalence and distribution of the communicable diseases may be had by referring to the reports of the laboratories and the Assistants to the State Health Officer.

A study of the statistical reports from the four largest cities of the State, all of which are included in the registration area of the United States Bureau of the Census, shows that the crude combined death rate was 16.3 per one thousand population as against 17.5 in 1914. These figures include both resident and non-resident deaths, the white

Introduction.

General
Health
Conditions.

rate being 13.3 and the colored 21, as compared with 14.5 and 22.1 for the preceding year.

Increasing
use of
Laboratories
by physicians.

New Building
at Pensacola.

Work of the
veterinary
Division.

Tick Eradi-
cation.

Distribution
of Anti-Hog-
Cholera
Serum.

Occurrence of
Anthrax near
Tallahassee.

Work of the
Assistants.

It is encouraging to observe the increasing use of the laboratories by the physicians of the State, who seem to be relying more and more upon this method of diagnosis in certain of the communicable diseases. The total number of examinations was 39,847 as against 34,618 in 1914. During the year two new branch laboratories have been established, at Miami and Tallahassee, and the Pensacola laboratory has been moved from the old quarters in the City Hall to our new building which was completed during the early part of the year. This building, which was constructed at a cost of approximately \$25,000, is of tapestry brick, two stories in height, and provides accommodation for the laboratory, the offices of the District Assistant to the State Health Officer, and a general assembly room which is also used by the Escambia County Medical Society for their meetings.

The activities of the veterinary division have been continued along the same lines as in previous years. The efforts toward tick eradication have brought forth some results. Dade County and a portion of Broward having been declared tick-free, though they have not as yet been officially admitted to the tick-free area as established by the United States Department of Agriculture.

By limiting the amount of anti-hog cholera serum distributed free of charge to an individual, the expenditure for this product has been greatly reduced. This one item had reached such proportions that this limitation was deemed necessary to prevent the excessive drain upon funds which were needed for the prosecution of other more important measures for the protection and conservation of human lives.

Two outbreaks of anthrax were reported from the vicinity of Tallahassee during July and August, being the first occurrence of this disease in the State. They were promptly controlled, however, and did not result in a further spread of the malady. The introduction of the disease into the State, and the occurrence of the second outbreak, were attributed to transmission by buzzards which are believed to have eaten carcasses of animals which had died from anthrax, and thus to have carried the disease to previously uninfected premises.

A great volume of work has been accomplished during the year by the Assistants to the State Health Officer

who have maintained an active supervision of health and sanitary matters in their respective districts, and who have been detailed by the Executive Office for varying lines of duty including surveys of the sanitary conditions prevailing in certain localities, investigations into the nature and source of pollution of water supplies with recommendations for the correction of such defects, consultations concerning the installation of proper sewage disposal systems, the diagnosis of obscure or unrecognized diseases, the control of existing outbreaks and the prevention of further spread of communicable diseases, and the treatment of indigent cases of certain diseases which are placed by the provisions of the Statutes under the supervision of the State Board of Health. Full details of their activities will be found in their reports which are incorporated in the report of the State Health Officer.

The 1915 session of the Florida Legislature proved in many respects a memorable one, as regards matters pertaining to the health of the State. The public health committees of both Senate and House displayed a splendid spirit of co-operation in the plans of the State Board of Health for needed legislation along health lines. The State Health Officer was continually in consultation with these committees, and his suggestions at all times received the most courteous consideration.

Six bills were introduced at the instigation of the State Board of Health, five of which were passed by both House and Senate, approved by the Governor, and have become effective. These Acts provide for the following very important sanitary and educational measures in connection with the work of the Board:

Chapter 689—Authorizing the State Board of Health to purchase cars in which to install the Health Exhibit, and permitting free transportation by the railroads of such cars.

Chapter 6836.—Requiring all school buildings to be provided with adequate toilet facilities: by water carriage when practicable, or in rural communities by fly-proof surface privies constructed in conformity with plans approved by the State Board of Health.

Chapter 6953—Providing for the screening of kitchens, dining rooms and connecting passage ways of all hotels, restaurants, boarding houses, lunch counters, etc., and for screens of all food products which may be eaten raw or

Import
Public Health
Legislation.

Authorizing
Exhibit Train.

Relative to
Construction
of School
Privies.

Screening of
Food Pro-
ducts.

without further cooking, when such products are exposed for sale.

Surface Privies in Municipalities.

Chapter 6895—Prohibiting the maintenance or use of surface privies for the deposit of human excreta, within incorporated towns, unless such privies are fly-proof and constructed in conformity with plans approved by the State Board of Health.

Vital Statistics Law.

Chapter 6892—Creating a Bureau of Vital Statistics and providing for the registration of births and deaths, and for the granting of other necessary certificates, defining the duties of various officials and others in connection with the enforcement of this law and fixing their compensation, and further prescribing in detail the manner and form in which these records shall be collected, reported and preserved.

The single bill which failed of passage was: A Bill to be Entitled "An Act to Amend Sections 1129 and 1133 of the General Statutes of the State of Florida, Relating to the Oath of Office and Bond of the State Health Officer, and Requisitions for Funds for Current and Incidental Expenses of the State Board of Health." This bill passed the Senate and met with the approval of the Public Health Committees of both the House and the Senate, who had studied its provisions carefully and realized the necessity for this amendment of old laws to meet the growing needs of the State Board of Health. Its failure to pass the House can only be attributed to a misunderstanding of its purposes and provisions.

Medical Inspection of School Children.

In addition to the five laws mentioned above, there was also passed an act providing for medical inspection of all school children, placing this work under the supervision of the State Board of Health and providing that all expense incident thereto should be paid from the State Board of Health fund, though the nominations for appointment were to be made by the Boards of County Commissioners in the various counties of the State.

The construction of this Statute is faulty in many respects, especially in that it places upon the State Board of Health a duty which, if properly carried out, would necessitate an annual expenditure of approximately \$100,000, while it provides no additional resources from which this amount may be derived. To expend this amount from the regular income of the Board (which amounted during 1915

to about \$150,000) for the single item of school inspection is manifestly impossible—it would virtually mean the abolition of the State Board of Health and the establishment in its stead of a State Board of School Inspection. After a very careful consideration of the question from all sides, certain Rules were adopted for the regulation of this work, defining the nature and extent of examinations to be performed, the method of approval of appointments, the method and form of reports and records, and certain other duties of the Inspectors: and providing for a small fee (ten cents per capita) for these examinations. This amount, it is realized, is only about one-fifth of that necessary for the proper enforcement of the provisions of the Act; but even at this figure it will call for an annual expenditure of approximately \$20,000 which, in the opinion of the Board is all that can reasonably be devoted to this work without seriously hampering other equally or more important activities.

Cost of Medical Inspection.

Some criticism and censure has fallen upon the State Board of Health and the State Health Officer because of the short-comings and the faulty construction of this Statute, whereas in reality the Board had no connection whatsoever with the introduction or passage of this bill. In fact, although the State Health Officer was present in Tallahassee during the entire legislative session it was not submitted to him for consideration, and his first knowledge of its existence was an accidental hearing of the discussion of it in the House of Representatives one morning when Mr. Lake, the champion of the measure, urged its passage and stated that he wanted it understood that the State Board of Health had no connection with its introduction.

Statute Passed without knowledge or approval of Board.

This work of school inspection is exceedingly important and the Board is in hearty sympathy with the spirit and intent of the law, but it deplores the fact that adequate financial provision was not made for properly putting it into effect.

Importance of School Inspection.

From reports received from various sections of the State it seems that in many instances the authorities are exceedingly negligent in the enforcement of the Statutes, especially with regard to screening of food products and the construction of surface privies, although there is ample authority for the prosecution of violations of these laws. It has always been the policy of the State Board of Health to

Failure of Authorities to Enforce Existing Laws.

refrain, whenever possible, from interference in these matters, feeling that they should properly come within the jurisdiction of the constituted prosecuting authorities, inasmuch as this Board has no police or judicial powers such as are vested in the Railroad Commission, and can not summon before it those guilty of violations of its rules and regulations or the statutes relating to the public health.

Efforts of
Board Chiefly
Educational.

Our efforts have rather been directed toward the education of our citizens to better, more sanitary and more healthful modes of living, and in the simple but important rules which are necessary for the prevention of disease and the attainment and preservation of good health.

To this end the publication of Health Notes, the monthly bulletin of the Board, and of the weekly press service which is sent to every newspaper of the State, has been continued, apparently with considerable success if we may judge by the increasing number of requests for this and other literature.

Educational
Health Ex-
hibit Train.

Probably the most important advance which has been made during the year has been through the purchase and equipment of an Educational Health Exhibit Train. In accordance with authority granted by the recent Legislature the Board purchased at a very reasonable figure three Pullman cars, which were remodeled and adapted to such use, and in which the "Health Exhibit" which has been in use for the past year, together with much new material, has been installed. This train will tour the entire State, stopping at practically every railroad station, and thus bringing to every section of Florida, no matter how remote, the gospel of good health and disease prevention. Judging from the very enthusiastic reception which was accorded the Exhibit when it was sent out during the early part of the year, I believe that the Educational Train will be a more potent factor in the improvement of the health of the State than any other single line of endeavor in which we are engaged.

Anti-Tuber-
culosis work.

The anti-tuberculosis work has been continued and extended, the force of "Nurses" having been increased to six, each of whom has been assigned to a district comprising from seven to nine counties with a population of approximately 100,000, exclusive of the larger cities which had already taken up the work under the direction of their local health departments. I wish to call your particular

attention to an interesting resume of this work, which will be found in the report of the State Health Officer.

In April of the past year, after consideration of bids received from several firms, an agreement was entered into with the National Vaccine and Antitoxin Institute, of Washington, D. C., whereby certain stations for the distribution of diphtheria antitoxin and typhoid vaccine were established in each county. These products are distributed free of charge for use in indigent cases, as formerly, and by the terms of the contract are sold at retail, under State Board of Health label, at about one-third of the customary price, thus bringing these valuable preventive and curative agents within the reach of many who, though not indigent, are unable to pay the prices usually placed upon such products.

Contract for
Distribution
of Biological
Products.

The passage by the Legislature of the "Model Vital Statistics Law" was an important step forward. It places us on an even footing with certain of our sister States which had already adopted this important measure providing for the accurate collection and reporting of birth and death returns, and assured to us for the future a more efficient control of disease; for no organization can hope to secure the best results from its labors unless it is able to obtain accurate data concerning its profits and losses. These records of the number and location of deaths from certain causes, and of the number of births for corresponding periods and localities, are to the public health worker what the ledger is to the head of the commercial firm. They show the margin of profit and the location and cause of the losses. Vital Statistics have been very aptly termed "the bookkeeping of life and death."

Vital Statis-
tics Law.

It is exceedingly difficult to impress upon the average individual, and I regret to say even upon the average physician, the great importance of these records; and much difficulty is experienced in putting into effect the provisions of the State-wide law, though reasonably satisfactory results have been secured under the operation of municipal ordinances in many of the towns and cities of the State. Progress is being made, however, and it is hoped and believed that the future will bring forth results which will lead to a great improvement in the health of our people and will furnish us with accurate statistics upon which to base our claims for the healthfulness of Florida.

Indifference
of Physicians
to Importance
of Vital Sta-
tistics.

Conclusion.

These matters which I have here briefly considered are only a few of the many interesting and important subjects which are discussed much more fully in the reports of the State Health Officer and his assistants; and in conclusion I wish to again recommend to your earnest consideration the following report of the work of the State Board of Health during the past year.

Very respectfully,

(Signed) F. J. FEARNSIDE,
President of the State Board of Health.

REPORT OF
THE STATE HEALTH OFFICER
DR. JOSEPH Y. PORTER

REPORT OF THE STATE HEALTH OFFICER.

Jacksonville, Fla.,
January 1st, 1916.

To the President and Members of the State Board of Health
of Florida.

Gentlemen:—

Introduction.

I herewith hand you the annual report of the Executive Officer of the State Board of Health for the year 1915, and which also contains a record from the Chiefs of the several divisions of the Board's activities, of the work done by each in the past twelve months.

In transmitting to you this report of the transactions of the State Health Department for the year 1915, it is a pleasure to state that the health of the commonwealth for the past year can be said to have been fairly good, as the vital statistics tables appended, will show.

To say that the health of the people of Florida has been excellent would probably be misleading and tend to convey an impression that there has been no sickness of any kind to disturb the physical or mental comfort of the citizens' life. Until the ideal existence has been reached, and that cannot be hoped for this side of the millenium, it would be untruthful to make any such a statement because the ills that flesh is heir to will always be incurred by those who through indifference or neglect have disregarded advice to accept and practice preventive measures against sickness and disease, but as the people awaken to the realization of the commercial value of good health, which is a purchasable commodity these ills of life will rapidly become less and less.

There were, however, no extended or extensive prevalences of communicable disease, during the year and the few unimportant outbreaks which did occur could have been well prevented by observing the ordinary rules of healthful living and adopting measures which are advised by the State Board of Health in the many publications and press services and which are to be obtained for the mere asking.

The activities of the Board have been directed more especially during the past twelve months to an educational campaign by which each individual citizen can learn

through the eye in having placed directly before him plain texts, models and diagrams that can be read easily and understood readily, rather than by listening to lectures, for after all, an impression gained of a subject in a picture play is more lasting than what is told even when frequently repeated.

It is a subject of congratulation for the Board that this system of education in healthful living is appreciated thoroughly, accepted and commended by the general public of Florida, which encourages to further activities in this line of work. A retrospect of the health situation in Florida today and that prior to 1889, shows a decided and steady improvement in healthful living and more than that, it reveals also a keen interest now given to methods and measures to lessen sickness, decrease mortality and lengthen life, which were not heeded in the State a quarter of a century ago.

The people everywhere throughout the State seem to have awakened to an earnest desire to adopt means by which the greatest asset of their existence, namely, health, can be had and preserved, and it is believed that in those instances where preventable sickness has occurred that the failure to avert such happenings has been more from a forgetfulness rather than from a hostile or obstinate desire to refuse to accept the teaching of the constituted health authorities of the State.

In the absence of accurate morbidity statistics any comparative statement as to the prevalence of the various communicable diseases occurring throughout the State with occurrences of previous years must, necessarily be of a general nature. Morbidity statistics must be procured from those who come into intimate relation with sickness, namely, the doctors, and unless the value of such information is appreciated by the physicians of the State more than it seems to be now, it is doubtful whether reliable data of this kind can ever be had. Most assuredly no layman can give this information: an information that is particularly useful and especially so in a State like Florida where a genial, equable, temperate climate invites sufferers from all diseases. If it can be definitely known what portion of the State is peculiarly beneficial to certain disorders and what portions are free from certain ills, the data acquired would be invaluable.

Awakened
interest in
health
matters.

Morbidity
statistics
not obtain-
able.

ble, and many queries about the health of the state could then be intelligently answered.

Probably the most accurate index of morbidity may be gotten from a study of the records of the obtainable examinations made in the different laboratories operated by the State Board of Health; for while these examinations represent only a portion of the total number of cases occurring in the State a comparison of these same for different periods will furnish a fairly correct idea of the corresponding totals for the different periods. Therefore, to those who are interested in this subject the laboratory reports which form a portion of this account of the Board's energies for the year, may be consulted.

There has been quite a decrease in the number of reported cases of smallpox for the year, and which it is believed denotes a corresponding reduction in the total number of cases occurring, and conservatively may be estimated to be approximately double the number reported.

Smallpox.

For six consecutive months of 1915 not a single case of smallpox was cared for in the Duval County Isolation Hospital at Jacksonville. This is quite an unusual occurrence and seems to indicate clearly that this disease was much less prevalent during 1915 than the preceding years. The reasons for this decrease in smallpox through the State may be two: First, the almost universal vaccination which has been had for the last five years, not through any compulsory vaccination law enacted by the Legislature, but by that law of public opinion which has forced those who are unvaccinated and thus unprotected against smallpox to be protected if by chance they should become exposed to smallpox infection, if they would not be shunned by their neighbors.

In dealing with smallpox the Executive Officer was inclined at first in the early days of the Board's existence to control the spread by compulsory vaccination and by quarantine; this was in 1889 to 1893 or 94. There is no doubt but this would have been a most effective method because in years afterwards, when the U. S. Government took possession of Porto Rico a general vaccination of the inhabitants of that island conducted under military management and control, thoroughly exterminated the disease from that country. The legislature of Florida thought this means to be rather harsh, because interfering with the

rights(?) of the citizen, and refused to adopt the recommendation of the State Board of Health in this respect. This mode of control was therefore abandoned. It is gratifying, however, to note that as the people of the State became better informed, that although the legislatures refused an enactment of compulsory vaccination the people themselves brought into effect the same assistance in exterminating a loathsome disease which their representatives objected to give.

No longer is quarantine against smallpox practiced or advised in the State of Florida. The State Board of Health, thoroughly imbued with its convictions in regard to the management of smallpox has had the courage of its convictions in this respect to oppose quarantine as a method for suppression of smallpox. Florida was one of the first of the states in its health management to refuse to quarantine against smallpox and to substitute therefor thorough vaccination. Cases of smallpox however should be isolated and the premises placarded to warn the public of the existence of a communicable disease of a dangerous character within; but those who have been successfully protected by vaccination should be neither forbidden to enter nor to leave the premises for the slight danger of transmitting the disease through clothing of persons not in direct contact with the sick, is considered such a negligible factor in its spread, that it is not given any thought.

This subject has been dealt with in each annual account of the State Board of Health's work for the past twenty-five years so it is not thought to be now necessary to go more thoroughly into the discussion of the absurdity of quarantine as a protective measure against smallpox nor the value of vaccination as a safeguard by the individual and a suppression of extended prevalence.

The number of reported cases of smallpox for the year 1915 of which the executive office has any knowledge is 236 as against 583 for 1914.

Diphtheria has been more prevalent in 1915 than in 1914 according to the number of positive laboratory examinations made for the diagnosis of this disease. In fact the records show a decided increase of the number of cases. It is true that the total number of examinations increased proportionally and that the percentage of positives to the total number of examination remained practically constant,

Diphtheria.

but this should not be considered as an evidence that an actual increase did not occur.

On the other hand it may really be considered as additional evidence that the increase was actual as well apparent for the total number of examinations for the diagnosis of the disease increased regularly. It is evident that a greater number of cases of that disease existed, thus making necessary the increased number of examinations for its diagnosis.

A large number of school children have been examined at the request of the superintendents of public instruction of the different counties of the State and quite a few of these have been shown by laboratory examination of swabs and cultures to have the peculiar germ of diphtheria existing in the throat although showing no clinical manifestations of diphtheria. It is a noteworthy fact that the greater number of cases are found at the commencement of the fall school term, and after a summer's sojourn in other states. As the months pass, the clinical and carrier cases become less, until as spring and summer approaches, the cases are markedly few in number.

These cases known as "carrier cases" have been excluded from the public schools wherever found with instructions to be treated and with further advice to superintendents and principals against readmission until the laboratory reports show three consecutive negative findings. It is exceedingly difficult to satisfy the ordinary layman that a child or individual showing absolutely no symptoms of disease or deviation from normal health either in freedom from fever or loss of appetite, or sleep, should be considered a menace to the community, because of the finding of a peculiar germ in the mouth, throat or nose of such an individual; yet the testing out of this subject in the central laboratory has shown that a culture from the throat of one of these carriers when injected into a guinea pig produced death in the animal in a short while, and post mortem appearances were typical of diphtheria infection. It is recognized that disease organisms particularly of this group are of so many varieties, shapes and forms, in other words, the morphology is so similar that it is difficult in many instances to distinguish and separate the virulent from the non-virulent type, thus increasing the errors that may be made in discriminating and grouping the different forms of this bacillus. Undoubtedly errors of microscopical diagnosis will

be made but always on the side of public health protection, which will unquestionably cause inconvenience to the individual but will on the other hand insure protection to the general public.

It would seem, therefore, that the safest and surest method to follow in safeguarding the public against diphtheria is to isolate or exclude from common mingling or intercourse carrier cases which are unusually long in duration, the cultures from them to be tested for virulence. The appearance of diphtheria in localities where there have been no clinical cases for some time may explain the occurrence through a carrier happening in the community.

Diphtheria like other communicable diseases requires immediate contact for transmission, and it is believed that it is possible for healthy individuals to associate with carriers and not contract the disease unless they come in immediate contact by kissing or using drinking glasses or vessels that have previously been used by the suspected "carrier."

Like the care and management of other communicable diseases common sense and good judgment must often times regulate the supervision, control, and protection of a community rather than by a strict adherence to the dogmas of the scientific aspect of the disease.

There also appears to have been a slight increase in the number of cases of malaria, the number of positive examinations for the years 1914 and 1915 being 276 and 307 respectively. In all probability this is only an apparent increase due to an improvement in the technique employed by the physicians of the State in collection of specimens and also to an interest, and increasing estimation of the value of laboratory work which has suggested to the practitioner the necessity of obtaining a well defined knowledge of a fever which he is treating through the use of the different bacteriological laboratories of the State. This opinion of rates of increase is based upon the fact that although the number of examinations has remained practically constant the percentage of positives has increased from 6 per cent in 1914 to 7.24 per cent in 1915. The data received, however from the district assistants to the State Health officer seems to indicate a slight reduction of the prevalence of the disease, when based altogether on mere clinical etiology. It is believed that the general practitioner has come to fully realize the fact that a great deal of discomfort and disa-

Malaria.

greeable feeling experienced by his patients and formerly ascribed to malaria is in fact due to an auto-intoxication from intestinal disturbance, and that the bacteriological laboratory is the only logical means of ascertaining the existence of the malarial parasite in the blood.

While not a few people ascribe all their "aches" and discomforts to malaria, yet the number of such self-diagnosticians is becoming fewer and fewer each year, as the fact is learned and is accepted that malaria is due to an infection conveyed by a malarial diseased mosquito, and not through bad air or anything that is taken into the system by food or drink.

Rabies.

Rabies has decreased progressively since 1911. In 1915 there were made 67 examinations in laboratories with 41.7 per cent positives as against 82 with 43.9 per cent positives for 1914. There has, of course, been a corresponding decrease in the number of prophylactic treatments administered. Eighty-nine for 1914 and fifty-seven for 1915.

Tuberculosis.

Practically there have been no variations in the records of tuberculosis, either in the total number of examinations or in the number of determined positives. It is believed however, that during the coming year more complete reports of this disease will be received and can be published when the activities of the district nurses are available for a period in which a tabulation and analysis can be made which will then be of some value.

In the last annual report mention was made of a campaign against tuberculosis by the corps of nurses which was authorized in the March meeting at Key West in 1914. At that time only three were provided for, Miss Eula Lee Paschall, Western District; Miss Harriet J. Sherman, Southwestern District and Miss Frances Herndone, East Coast District. Since that time the Board has added to this force three more and the State has been divided up into six districts as follows:

First the Western District composed of the Counties of Escambia, Santa Rosa, Okaloosa, Walton, Holmes, Jackson, Washington, Bay, and Calhoun; second, the West Central District composed of the counties of Gadsden, Liberty, Franklin, Leon, Wakulla, Jefferson, Madison, Taylor, and Lafayette; third, the North Central District composed of the counties of Hamilton, Suwanee, Columbia, Baker, Bradford, Nassau, Duval, Clay, and Putnam; fourth the Central District composed of the counties of Alachua, Levy,

Marion, Citrus, Hernando, Pasco, Sumter, and Lake; fifth the Southwestern District, composed of the counties of Pinellas, Hillsborough, Manatee, Seminole, Orange, Osceola, Polk, DeSoto and Lee; and sixth the East Coast District composed of the counties of St. John, Volusia, Brevard, St. Lucie, Palm Beach, Broward, Dade and Monroe.

When the matter of appointing these additional nurses was considered it was thought best by the Executive Officer that a competitive examination should determine the capableness of each, because of the number of applicants who had made requests for the appointments to these positions, and as it was desired to obtain the best informed in this line of work the State Health Officer, with the approval of the President of the State Board of Health requested three well qualified persons of the citizenship of Jacksonville to constitute a Board for this purpose, and who would determine the qualifications by a carefully and impartially conducted examination of all applicants.

Dr. R. H. McGinnis of Jacksonville whose interest in tuberculosis was well known to the Executive Officer of this Board was appointed Chairman, and Dr. Ellen Lowell Stevens also most competent by reason of her professional education and connection with the health department of the Federation of Women's Clubs of the State of Florida, and Mr. Marcus Fagg, an enthusiastic sociological worker, in charge of the Children's Home Society, were selected and requested to constitute this Board, and conduct the examination. The report of this examining board can be read elsewhere in this narrative. Seventeen applicants applied and of this number the following were selected:

Miss Irene Foote, to be in charge of the East Coast District, Mrs. Mary J. Spencer, to be in charge of the Central District. Mrs. Lydia L. Kirk to be in charge of the West Central District; and Mrs. Susan Voorhees to be in charge of the North Central District.

Miss Herndone of the first number of tuberculosis workers in this campaign having been transferred to the Educational Health Exhibit made a vacancy in the corps of nurses, which was afterwards filled by one of the found qualified applicants.

There has been no disappointment in the manner in which the last four nurses for this work were selected, and it is hoped that in future when appointments of this kind

District Tuberculosis Nurses.

or character or for a work where special fitness is required that competitive examinations shall always determine the appointment, and that favoritism, friendship, or political preferment may not be permitted to influence the selection.

It is hardly fair to the cause to try to definitely say just how much good has resulted from the work which has been assiduously carried on by these district health workers, since July 1st, because the time has been too short to formulate any data or accumulate any figures by which results of a beneficial character can be studied, but what has been done is shown elsewhere in this report.

It is hoped however, that in the next year's annual report a detailed statement can be made of the work done, showing the number of patients visited and the apparent benefits derived from a system of home treatment of the tuberculous individuals of the State.

The districts over which these nurses must travel is entirely too large. It does not allow frequent visits to the same patients and ability to give that necessary advice which must be often repeated to insure beneficial or lasting results. Therefore it is apparent without argument that the force should be increased and that at least double this number of tuberculosis workers or nurses should be added so that the districts may be sub-divided and re-arranged, and thus allow more frequent visits of the nurses to each individual patient and with frequent calls, a greater degree of careful oversight of the environments of sufferers.

Oftentimes in the past year these nurses have written that on their second visit which, under present conditions cannot occur oftener than every three months they have found that a patient who had been seen on the last visit had passed to the Great Beyond.

To be of any decided benefit, the home treatment of the tuberculous patient, especially the consumptive, the pulmonary phase of the disease, must have carefully laid down instructions and be frequently seen to ascertain whether advice is followed.

The system of home treatment of the tuberculous of the State, and especially of the pulmonary type of the disease, can well be described in the following article which was prepared for the Conference on Tuberculosis of the Southern States at Columbia last fall; and which is correct-

ed in tabulation of number of cases visited by the District Nurses to date.

"Florida has recently put into operation a plan which it is expected will secure a careful survey of the entire State to enumerate and locate the consumptives in Florida and spread a knowledge of the disease that is within the reach of those of most limited means."

Florida's Board of Health does not oppose or depreciate the sanatorium treatment of the disease. It advocates it for those whose financial circumstances permit them to take advantage of the splendid discipline and attention it insures. But public sanatoria are quite another matter, involving great cost to the State with very little practical return for the investment. I do not think that the efforts of older states in this direction have succeeded as expected. Dr. Campbell, of Ohio, and other authorities also hold this view.

The Board has realized that the erection of such sanatoria in Florida, for both races and both sexes, is beyond the practical financial reach of the State, when it is remembered that Ohio has expended nearly three-quarters of a million dollars for such an institution which has a capacity of only 142, while the canvass of the State shows more than sixty thousand patients entitled to its benefits.

But the Board appreciates the practical value of the open air treatment which is within the reach of even the poorest. Consequently the State was divided into six districts, nearly equal in population excluding the three largest centers of population, Jacksonville, Tampa, and Pensacola, which have already taken the matter in hand more or less efficiently. Excluding these cities the population of each of these six districts is somewhere in the neighborhood of 100,000. By competitive examination one nurse (though "Instructor" would be a preferable term) was selected for each of these districts.

To each of these nurses is assigned the work of ascertaining as far as possible the location and circumstances of every tubercular sufferer in her district. They are expected to offer assistance where it is acceptable, to advise not only as to the treatment in each particular case, but also to prevent the spread of the infection. The work of these nurses by force of circumstances must extend far beyond advice regarding the treatment of tuberculosis. It must include, if it is to be fully efficient, the wisdom to correct

insanitary conditions, to advise intelligently as to children's diseases and the many ills that commonly occur in rural communities more or less remote from the direct activities of local or city health boards, and where the services of the physician are not readily and quickly available.

This is of course a vastly different problem from that of municipal district nursing. With each district comprising a population of approximately 100,000, it is manifestly impossible for the nurse to make frequent visits to each patient. Consequently much of the follow-up work must devolve upon local officials, Women's Clubs, Boards of Trade, or other similar organizations. In view of these problems and the difficulties arising from the large population under the supervision of a single nurse, the following general outline was adopted for the work:

Preliminary
Survey.

1. A hurried general survey tour of entire district, determining most heavily infected localities. Interviewing all physicians endeavoring to enlist their co-operation, and getting as complete reports as possible of all existing cases. Interviewing local authorities and influential citizens in effort to arouse local interest. This survey of the districts (occupying from six to ten weeks) should give some information of value as to the distribution of disease, thus pointing to those sections in which the intensive work should first be attempted.

Intensive
Work.

2. A. General. (very important).

1. Further interviews with officials, Women's Clubs, Boards of Trade, etc., and meetings with Women's Clubs and other organizations for the purpose of establishing local anti-tuberculosis organizations, which will attempt to keep interest fully aroused during the Nurse's absence, to locate cases of the disease and to render financial assistance to indigent cases and their families.

(2) Work through the schools, "Mothers Meetings," etc.

(3) Distribution of posters, etc., and other general educational work.

B. Individual.

(1) Visit as nearly as possible all known and suspected cases of tuberculosis (with the attending physician whenever possible, though I am inclined to believe that very little active co-operation may be expected from

the physicians as a whole.) Make report as to patient's condition, financial condition of family, sanitary conditions of the home.

(2) Advise patient as to best measures to be adopted for his own physical improvement. If the patient seems to be intelligent enough to profit thereby, supply literature.

(3) Advise patient and family as to best measures for prevention of spread of the disease to other members of family and outsiders. Give patient all necessary information as to where supplies (sputum cups, etc.) may be purchased. Try to make this advice practical and easy of application. Preventive theories are worthless unless they can be readily understood and employed by persons of limited means and of comparatively limited intelligence."

This work along the above lines has been in operation only three months, and, while our experience is, of course, very limited, still it seems to promise very favorable results—and that too under what may be considered rather unfavorable circumstances. Owing to the fact that much of our State is very sparsely settled, work of this nature is rendered even more difficult than in some of the more thickly settled states, especially those with small negro populations.

One of the chief difficulties to be overcome, it seems, is the hesitancy on the part of the physicians to insist upon thorough examination of their patients, both clinical and microscopical and a tendency to conceal the true condition from them for fear of offending them and thus losing their practice. This fact has been mentioned on several occasions by each of the nurses. On the whole, however, a fair degree of co-operation has been secured both from physicians and local authorities, notably the Women's Clubs; and as the work progresses and becomes more familiar to the people of the State we may expect, I think, much more help from these sources.

A brief summary of the work of the past six months follows, though its scope is so broad and its nature is so diversified that we may not hope by a mere tabulation of figures to show even a small part of the actual results which have been accomplished.

DISTRICTS	Number of Cases Visited During 1915	Cases found to have died 1915	Cases Removed during 1915	Cases Apparently Cured During 1915	Number Patients Under Instruction Dec. 31st, 1915.	Number Patients Following Instruction.
Western	211	74	26	10	104	66
Southwestern	212	42	20	4	148	113
Central	173	37	33	9	92	79
North Central	191	11	3	1	176	70
West Central	162	31	6	6	119	70
East Coast	276	23	13	1	240	233
Total	1,225	218	101*	31	879	631

*Includes 3 cases again found in other districts.

This is the beginning of a work of possibly immense benefits to the people of the State in an educational direction as well as in practical advice regarding the home, open-air treatment of tuberculosis.

It is confidently expected that its successful issue will warrant its speedy and wide extension by the employment of a larger force of capable, self-sacrificing women.

Typhoid has shown a marked decline both in the number of positive laboratory examinations and in the occurrence of outbreaks necessitating investigation by the field force. It is thought that the persistent recommendation of the Executive Officer for vaccination against typhoid fever and the exhibit of tables in the State Board of Health's exhibit division has been in a great degree responsible for the lessened prevalence of the disease in the State during 1915. Another factor in this decrease is the lessened cost of the vaccine, which may now be had everywhere in the State, for a small sum, within the reach of every person's pocket book.

There have been outbreaks of whooping cough and measles and mumps in different sections of the State during 1915, but the mortality has been exceedingly low. When parents and others come to recognize the fact that these diseases of childhood should not be encouraged in their spread and that it is a wrong advice to suggest the taking of these diseases while "young" because, although self-protected in the main against future attacks by an immunity which one attack gives, yet there is always the danger that the first attack may be fatal or leave in its train a lowered vitality which renders the child peculiarly susceptible to the inroads of other diseases.

During the past few years the increasing prevalence

of pellagra, or the more wide-spread recognition of its existence, has called for extended investigation into its distribution, cause and mode of transmission, and its character and treatment. The disease in this country appears to occur principally in the Southern states, though it is by no means confined to them.

With the purpose of gaining some information as to the distribution and prevalence of this malady in Florida, postal cards were mailed to physicians throughout the State with the request that they report to the State Health Officer the names and addresses of all cases of pellagra which had come under their observation. In this manner reports were received of 502 cases of this disease, though many of the cards sent out brought forth no reply and the number of cases thus reported probably does not include one-half of those actually existing in the State.

In addition to these reports, personal investigations of 222 cases have been made by the Assistants to the State Health Officer, and detailed data concerning them has been furnished the Executive Office. It is quite probable, however, that many of these investigations cover cases previously reported by physicians, thus causing some duplication in the records of cases.

Quite an extensive study of the disease was undertaken during the past spring and summer, an Assistant to the State Health Officer being detailed to Bay County, where "dispensaries" were established for the examination of suspected cases and the instruction of patients in the proper methods of treatment and prevention. During this investigation, of which a full account will be found in the report of Dr. J. E. Taylor, 117 patients were under observation. In all of these cases the line of treatment advised was that suggested by the results of recent studies conducted by the United States Public Health Service, particularly in Mississippi, which seem to show rather conclusively that pellagra is due to a deficiency in the proteid element of the diet. We have, therefore, advised in all cases a more varied diet including milk, eggs, fresh meats and the leguminous plants, especially beans, which because of their proteid composition are believed to be of unusual value in the diet of pellagrins. This line of treatment seems to have brought forth very satisfactory results, practically every case coming under our observation having been considerably bene-

Pellagra

Typhoid
Fever.

Whooping
Cough,
Measles,
Mumps.

fitted, though whether or not this improvement will be permanent can, of course, be determined only by a careful observation of the future developments in these cases.

It is to be hoped that further studies will reveal more definite information regarding the causation and treatment of this disease. For the present, however, the theory outlined above would seem to have brought forth more satisfactory results than any other of the many widely differing views which have been advanced concerning this malady.

When the American Public Health Association of the United States held its meeting in Jacksonville in December 1914, the State Board of Health gathered together, as a partial health exhibit, certain explanatory information in the shape of panels, texts, models and electrical devices, bearing upon sanitary principles in health management and disease suppression, thus aiding in the general plan of education in sanitary principles. This exhibit was shown in connection with the meeting of the American Public Health Association, which was the first departure of this kind from ordinary routine discussions of papers, which had ever been had at a meeting of this Association.

The matter gotten together by the State Board of Health was made a nucleus for future additions, and early in 1915 sufficient material had been constructed and gathered to warrant a traveling health exhibit for the State. This was packed in suitable boxes and transported from point to point by freight and express during the year 1915.

Sanford, Orlando, Tampa, Lakeland, Ocala, Palatka, St. Augustine and different points on the East Coast, and Miami, were visited last year.

The Board for twenty-six years had been distributing literature and by correspondence, had given out such information as it thought would tend to improve health conditions in families and communities; but it was not until this health exhibit began to move about the state that any real results of marked interest in health and sanitary matters became evident among a class where education in its general sense was not notably apparent.

Time and experience proved, however, that this method of imparting information to the people while serviceable and healthful (for it is recognized that the impressions gained by the eye are retained by the ordinary indi-

Educational
Exhibit.

vidual longer and remain more vivid than anything heard or perhaps read), was, at the same time expensive and physically racking.

While the health exhibit by freight and express imparted information at points where directed, yet the universal distribution of this knowledge throughout the State could not be effected in this way, because of the expense of transportation, both of the exhibit and for the officials of the Board connected with the same, together with the loss of time which ensued in moving from place to place to say nothing of the trouble in packing and unpacking and the consequent damage to models, electric devices, etc., which followed such frequent handling by freight.

To overcome this difficulty, the idea of a train suggested itself, but the expense of such a method seemed to make the proposition a prohibitive one. However, the Executive Officer, decided to make the effort in this direction and entered into correspondence with the different roads in the State placing before them the educational feature of a proposition of this kind and asking if the legislature should authorize the transportation companies in the State to transport free of cost a car or cars equipped with necessary health educational matter, would the transportation companies in the State be willing to co-operate in this educational work by transporting these cars and the attaches over their several roads, free of any charge to the State Board of Health.

Almost unanimously and very promptly the railroad companies responded with cheerful assent to the proposition. The late Mr. Emerson, President of the Atlantic Coast Line, writing that not only did the idea appeal to him from a strong educational point of view (the need for which he thought was decidedly essential to the people) but that so far as it would be lawful and legal for him to do so, he would cheerfully use what influence he might have in the legislature of Florida to bring about the consent of the Legislature to the proposition, such as I had presented to him.

Accordingly, a bill was drawn which authorized the transportation companies operating in Florida to give free service to the State Board of Health for educational health exhibit cars with necessary attendants and when presented the Senate unanimously passed the measure and there were but few dissenting votes in the House. As soon as permis-

Health
Educational
Exhibit train.

sion of the legislature was given, correspondence was opened with the Pullman Company at Chicago and the General Manager, Mr. Richmond Dean, and his courteous assistant, Mr. Powell, promptly complied with the request for purchase of cars of wooden construction, but in thorough repair. The wooden cars were suitably adapted to the service in Florida, for steel cars would be too hot in this climate, especially during the summer season.

The Pullman Company also entered heartily into the proposition of the educational feature of a moving health exhibit and detailed one of its construction mechanics to visit the Executive Officer with blue prints of three cars and with instructions to confer with the Executive Office of the Board as to their re-modelling. The alteration, to meet requirements was gone over very carefully and in December of 1915 the cars were delivered to an assistant of the State Health Officer who had been sent to Chicago to receive them. Elsewhere in the table of receipts and expenditures of the Board will be found under a separate heading a statement of cost of purchase of the cars with the equipment.

Briefly stated, the cars were sold to the Board at a nominal price of \$500.00 each, plus the necessary equipment to fit them for the use desired. It is quite unnecessary to remark that this price partakes of a donation, more than a sale, for each truck of wheels, and there are two to a car, cost over that amount, and the cars themselves, when built not less than twelve or fifteen thousand dollars apiece.

One car is used principally for living purposes of the employees and has been made comfortable for that purpose. There are no luxurious fittings but plain, every day furnishings have been provided because it must be the home for those in constant daily attendance upon the exhibit and its teachings.

The living car thoroughly equipped in every particular has cost less than a moderate priced automobile.

When it is considered that this train will visit every station and settlement in the State which can be reached by railroad it cannot fail to be understood and must be appreciated the value which the information will be to a class which probably cannot be reached in any other way, except by a direct visit to their homes.

A full description of these cars has been given in the

daily press of the State and therefore it is not necessary to repeat here, but it is sufficient to say that with a moving picture machine, educational films, models, electric devices, panel texts, and other valuable devices for instruction, the Board has adopted a means of distributing the gospel of good health that is far ahead of any other manner of teaching. It is estimated that the cost of maintaining this division less any repairs which may have to be made to the train itself will not exceed \$6,000.00 a year and that will include the upkeep, such as food and likewise the pay of the necessary employees attached to the division. When it is considered that the State Board of Health under authority and mandate of the legislature representing the people of Florida expends \$30,000.00 a year in its Veterinary division and the greater part of this amount to enhance the swine industry of the State, \$6,000.00 is a very meager proportion of the Board's income to be given for measures designed to elevate and better the health of the people of Florida.

The recommendations of the Board in its annual meeting in 1915 to be presented to the Legislature to be enacted into laws, were accepted by that Body and were all adopted and now are on the statute books of the State. The people in Florida who are interested in health matters and in the advancement of health interests recognizing that the wealth of a community as well as of the State, depends upon its healthfulness, are indebted to the forceful presentation of the subjects in the legislature, by Senator Fogarty of the 24th district in the Senate, and by Hon. Forrest Lake representing Seminole County in the House. There were other warm advocates of the health measures in both branches of the Legislature, which the State Board of Health desired, and it would be invidious to single out individuals who gave the recommendations of the State Board of Health their endorsement, for the majority of the Legislative Body offered hearty co-operation, but it is perfectly proper to mention the representatives in the Senate and House who had these measures especially in charge and to whose thorough understanding of the subject, telling arguments, and enthusiastic advocacy, the bills were passed.

Most admirable measures for the prevention of disease and protection of health and life have been enacted into law by the will of the people through their representatives in legislative assembly of 1915, but unless these laws

Legislative
measures.

are enforced they might as well never have been written. The State Board of Health is not a judicial body; it has no legal authority to summon witness, try offenders against the statutes or to inflict punishment, such as the Railroad Commission possesses. The proper law officers of the State—the sheriffs and solicitors of the several counties are the officials to see that these requirements so necessary to protect life and preserve health are complied with by the indifferent and careless. The sheriffs of the State and solicitors, of both circuit and criminal courts have all been written to and have had enclosed to them a copy of the last enactments of the legislature respecting screening of restaurants, hotels, boarding houses, fruitstands and lunch counters as well for screening surface closets in incorporated towns and for school privies; and what is more they have been asked to see that the laws were enforced. It is not too strong a statement to make or too broad in its scope of activity to say that there is only one town in the State that the writer knows of, where there is a strict observance of the enactments just mentioned. It is gratifying, therefore, to state that as a consequence a decreased morbidity rate among children and a lowered morbidity and mortality among the adult population of this place has rewarded the action of the citizens and the vigilance of the representatives of the Board.

Expenditures of the Board.

In the report of the Executive Officer in 1915 mention was made of the increasing expenditures each year, of the State Board of Health, which had been made necessary by the greater responsibilities which each successive legislature has added to the work of the Board. It was also said that doubtless the half mill tax on the assessable property of the State appears to the average citizen to be large. These statements bear repeating this year because applicable in view of a large total expenditure. The thoughtful reader, whether business man or not realizes that a business which is daily increasing in volume, needs a greater amount of help to properly manage and bring forth successful results.

The large wholesale houses of the country which, perhaps had their beginning and origin in the country retail store, by reason of increasing amount in volume of business necessarily must have more help and that, too, of experienced clerks, than when a beginning was made in their commer-

cial career in a small country town. The larger the business, the more experienced help is needed to manage the increasing volume of trade.

The only unpleasant feature connected with the consideration of health matters by the last legislature was when a censure was made in the House that too large an amount of money was spent in salaries by the State Board of Health for distributing and managing a sum which did not more than equal the extent of the payroll of the Board. It has been remarked in this report before, that the work of boards of health is principally that of an educational character, and as the education of the masses must always be the main and prominent feature in health management, it takes money to pay for competent educators.

The expenses of maintaining institutions of public learning are mainly in the salaries of educators; therefore, when an attack is made upon the size of the payroll of employees of the State Board of Health, it is manifestly unfair to seek to make it appear, for a spite purpose of discrediting the work of the Board, that there has been an extravagance in the funds or that there has been an unnecessarily large number of persons employed. The main features of the management of the State Board of Health of Florida must be that of education of the people. The Board is not vested like the Railroad Commission with judiciary powers to summon culprits and impose fines and punishments, nor does it desire to have such authority. The State Board of Health desires to get closer to the people, not through a punitive significance of the "big stick" of the law; but through confidence inspired by the people in the ability and integrity of those who are appointed to look after their health, so there may be a co-operation between the people and the Board, begotten of esteem and respect and that closer tie of friendly love which is beautifully typified in the intimate relations of the country physician in his family practice.

When it is learned that in the entire 27 years of its existence the State Board of Health of Florida has never sought through the courts to enforce any of its rules or the health statutes of the State it can be appreciated that it has depended altogether in dealing with the public on the weight of argument on behalf of reasonable propositions and not on judicial force.

There have been occasions, and quite a number, too,

when it seemed forbearance had been stretched to the last degree of endurance and no process of reasoning would avail to correct the flagrant violation of health ordinances except an appeal to the courts, but then a way would suddenly open for a compromise of differences without abandoning salient principles and the obdurate offender would soon yield, and become eventually an ardent supporter of health measures.

Education in every line of work where the reasoning faculties play a prominent part in determining action or accepting facts and truths is a slow process. To appreciate truths and facts the individual approached must have a certain degree of reasoning faculty to grasp an explanation and digest a statement, and the greatest degree of patience has to be exercised towards those who, unfortunately, are not so endowed; for it is lamentably true that it is this class of citizenship who are usually offenders against Nature's plainest laws, and who need looking after in this respect most carefully and indulgently.

The sum total of expenditures for the year 1915 has been larger than any which has occurred in any previous year, and has amounted to \$157,979.02. But let it not be forgotten that the demands upon the Board's treasury have also been greater than in any previous year, and that a charge that the State Board of Health had not sufficiently given in detail each year its expenditures is not based upon an understanding of the law in respect thereto.

The statutes say that a "clear and concise statement" of receipts and expenditures shall be made by the President of the Board to the Governor each year. It does not say a detailed statement, and if the annual reports for the past twenty-seven years do not show that a clear and concise statement, given separately for each division of the Board's activities, has not been shown, then it is because a proper understanding of the English language and construction of terms has not been understood.

This year a more specific and detailed statement of expenditures is given, not that the law requires other than a "clear and concise statement," but in going over the monetary accounts with Surgeon Fox a detailed, itemized audit has been made and it is possible to herein give it.

Section 1133 of the General Statutes of Florida, provides for \$2,500.00 to be advanced to the State Board of

Health each month for current and incidental expenses, upon a requisition of the State Health Officer, approved by the President of the Board. In the early days of the Board's organization, an advancement was made by the State Treasurer to the State Health Officer, of such amounts as requisitions might be made for, not to exceed the amount of his bond, which was \$10,000.00; but in the legislative session of 1899, this manner of meeting the Board's obligations was changed, and the above method was made by enactment. While the sum of \$2,500.00 remained sufficient, at that time, to pay all bills by checks from the executive office, it will now hardly pay a fourth of the monthly expenditures of the Board. The system which the legislature of 1899 provided for required that vouchers properly approved of by the President of the Board, and signed by the payee, should be submitted to the Comptroller each month before his warrant would be sent for the \$2,500.00, and the unexpended balance of that amount was required to be submitted to the Comptroller before another requisition of \$2,500.00 would be honored. As a result of this system, payees were required to sign vouchers before receiving payment of their bills, and before these vouchers were submitted to the Comptroller. Because of the confusion created by this unbusinesslike system of payment, which has never been satisfactory to the State Health Officer, the Comptroller was requested to devise some plan of paying legitimate obligations of the Board which would not require receipted vouchers as a prerequisite to payment, for payees seriously objected to this unbusinesslike manner of liquidating accounts. The Comptroller very kindly drafted a Bill to cover this defect, and the session of the legislature of 1915 was requested to enact the same into law. The Bill is reproduced herewith:

Unbusiness-
like System
of Paying
Bills.

Bill to Cor-
rect Faulty

A BILL TO BE ENTITLED.

AN ACT to Amend Sections 1129 and 1133 of the General Statutes of the State of Florida, Relating to the Oath of Office and Bond of the State Health Officer, and Requisitions for Funds for Current and Incidental Expenses of the State Board of Health.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF FLORIDA:

Section 1. That Section 1129 of the General Statutes of the

State of Florida be, and the same is hereby amended so as to read as follows:

SECTION 1129: OATH AND BOND OF STATE HEALTH OFFICER:

The State Health Officer before entering upon the duties of his office shall take before some person, competent to administer oaths, an oath to faithfully perform the duties of his office, and enter into a bond with good and sufficient sureties, or a bond given by a surety company, qualified to become surety on official bonds in the State of Florida, in the sum of Ten Thousand (\$10,000.00) Dollars, payable to the Governor of the State of Florida, and his successors in office, said Bond to be approved by the President of the State Board of Health, and by the Comptroller of the State of Florida, and filed in the office of the Secretary of State, and shall be conditioned for the faithful discharge of his duties and for the faithful accounting for all money that may come into his possession as such State Health Officer. The sureties on said bond, except a duly qualified surety company, shall be required to qualify in the same manner as is provided by law for the sureties on the bonds of County officers, except that the sureties shall not be required to be residents of any particular county, but must be residents of the State of Florida, and have the necessary property therein.

In the event a surety company's bond is given, the cost of obtaining such bond shall be a proper charge against the State Board of Health Fund, said bond to be prosecuted by the Attorney General for any neglect of duty, or abuse of power herein conferred, or for failure to account to the Comptroller of the State of Florida, by proper vouchers, or payment into the State Treasury, for all money that may come into his hands from any source as such State Health Officer, and if said bond shall be forfeited, all amounts collected from such prosecution from the principal or sureties thereon shall be placed to the credit of the State Board of Health Fund.

Section 2. That Section 1133 of the General Statutes of the State of Florida be, and the same is hereby amended so as to read as follows:

SECTION 1133: MONTHLY REQUISITION ON COMPTROLLER:

The State Health Officer is hereby authorized to forward to the Comptroller of the State of Florida at the end of each month, or at such other times as may be necessary, requisitions for money to pay the current and incidental expenses of the State Board of Health, but the amount of such requisitions shall at no time be allowed to exceed the amount of the bond of the State Health Officer so that at no time shall there be in the possession of the State Health Officer a sum of money exceeding the amount of his bond. Upon receipt of such requisitions the Comptroller shall, if the amount called for by such requisition does not exceed the above limitation, endorse on the same amount that may be required, and the Treasurer of the State of Florida shall transmit the amount stated by the Comptroller on the requisition to the State Health Officer, for the use of the State Board of Health, and the amount or amounts so advanced shall be covered and accounted for to the Comptroller of the State of Florida by proper vouchers approved by the President of the State Board of Health, and properly receipted by the person, firm or corporation to whom the amount was due in each case, and the Comptroller shall

audit the accounts and vouchers and draw his warrants upon the State Treasury for the amount that may be found to be due, and the amount of the warrants so drawn shall be credited by the State Treasurer upon the requisition or requisitions of the State Board of Health held by him for money advanced to the State Health Officer for the use of the State Board of Health, as provided for in this Section, and such requisitions, when fully covered by the warrants aforesaid, shall be surrendered by the State Treasurer to the Comptroller, and by him filed with the vouchers for warrants issued for expenditures of the State Board of Health.

Section 3. That this Act shall take effect upon its becoming a law.

The Senate very promptly complied with the request, but because of prejudice created in the House against the State Board of Health, and on account of misleading statements made which could not be answered by the accused in the same manner and place in which they were charged, the Bill failed to pass. The amount of the State Health Officer's bond is \$10,000.00, and the measure proposed by the Comptroller was precisely similar to the plan which had been in operation at the organization of the Board, and before the enactment of the legislative session of 1899. The Comptroller then very kindly thought of a plan to relieve the tension of paying bills, and suggested the plan of issuing individual warrants to payees upon submitting bills and vouchers duly approved by the Board. This was accepted, and it is now the scheme which is followed. Vouchers do not have to be receipted by payees, and all bills, except those covered by the requisition of \$2,500.00 for current monthly expenses, as the Act provides, are paid from the Comptroller's office at Tallahassee. The \$2,500.00 warrant is used in defraying current monthly expenses of the executive office, together with such accounts and expenses which seem to demand prompt and immediate settlement.

The following statement shows amounts received by the State Board of Health from the Comptroller on requisition, amount of State Board of Health bills and salaries paid in the Comptroller's office, and amounts returned to the Comptroller by the State Board of Health, by months, during 1915:

Faulty System Corrected.

Statement of Receipts.

	Requisitions by Vouchers Submitted, Signed by Payee	Bills paid in Comptroller's Office on Vouchers Submitted	Regular Requisitions	Unexpended Balance Returnable to Comptroller	Salary Requisitions by Vouchers Submitted, Signed by Payee	Salaries paid in Comptroller's Office on Vouchers Submitted
January	\$ 330.80	\$ ---	\$ ---	\$ ---	\$ 4,820.14	\$ ---
February	2,883.21	---	---	---	---	---
	2,099.09	---	---	---	4,873.76	---
March	3,050.78	---	---	---	---	---
	1,976.72	---	---	---	4,894.45	---
	187.03	---	---	---	---	---
	4,049.66	---	---	---	750.00	---
April	3,895.43	---	---	---	5,239.10	---
	4,039.47	---	---	---	---	---
	1,542.02	---	---	---	---	---
	2,852.96	---	---	---	---	---
May	2,801.66	---	---	---	---	---
June	3,771.13	---	---	---	5,426.23	---
	2,725.61	2,324.76	---	---	750.00	---
June & July	---	4,126.19	---	---	5,349.10	---
	---	3,386.05	---	---	---	---

	Requisitions by Vouchers Submitted, Signed by Payee	Bills paid in Comptroller's Office on Vouchers Submitted	Regular Requisitions	Unexpended Balance Returnable to Comptroller	Salary Requisitions by Vouchers Submitted, Signed by Payee	Salaries paid in Comptroller's Office on Vouchers Submitted
July	---	3,151.92	2,500.00	552.48	---	5,875.10
July & August	---	3,282.95	---	---	---	---
	---	5,196.50	---	---	---	5,922.56
August	---	---	---	---	---	---
July, Aug. & Sept.	---	198.10	---	---	---	---
August & Sept.	---	3,992.13	---	---	---	6,120.33
September	---	---	---	---	---	750.00
Aug., Sept. & Oct.	---	---	2,500.00	82.83	---	---
Sept. & October	---	4,367.97	---	---	---	---
October	---	3,314.60	---	---	---	5,944.10
November	---	3,178.64	---	---	---	6,067.43
Nov. & Dec.	---	2,215.38	---	---	---	---
December	---	4,076.23	---	---	---	5,875.67
Totals	\$39,205.57	\$42,811.42	\$7,500.00	\$869.89	\$32,102.78	\$37,305.19

Total receipts by special and regular requisitions, and bills paid in Comptrollers's office	\$ 89,516.99	
Total receipts by salary requisitions, and salaries paid in Comptroller's office	69,407.97	
Grand total receipts of the State Board of Health during the year 1915		\$158,924.96
Unexpended balance returnable to Comptroller (Section 1133, General Statutes)	\$ 869.89	
Refunds to State Board of Health, returnable to Comptroller	76.05	945.94
Total amount expended during the year 1915		\$157,979.02

STATEMENT OF EXPENDITURES OF THE STATE BOARD OF HEALTH OF FLORIDA FOR THE YEAR ENDED DECEMBER 31, 1915, BY THE DIVISIONS OF WORK.

Administration—		
Board of Health	\$ 950.30	
Office of the Secretary	7,357.12	
General Expenses	3,047.57	
Buildings and Grounds	1,989.39	
Clerical	5,267.32	
Library	444.84	\$ 19,056.54
Epidemiological—		
Field Medical Officers	21,503.16	
Public Health Nurses, including anti-tuberculosis activities	8,317.28	
Expenses account smallpox, including isolation hospitals	5,252.64	35,073.08
Health Supervision of Schools		1,199.24
Sanitation		3,428.75
Education (Exhibit and literature)		13,408.11
Vital Statistics Division		6,094.84
Treatment of Crippled Children		7,187.75
Veterinary Division		29,339.28
Laboratories—		
Main (Jacksonville)	11,959.08	
Tampa	6,901.98	
Pensacola (including 13,278.78, new construction)	17,358.77	
Miami	2,950.47	
Tallahassee	3,594.09	
Key West	427.04	43,191.43
		\$157,979.02

NOTE:—Statement showing expenditures in detail is appended to this report.

While it is thought the system of Health administration which the State Board of Health of Florida employs in its management is probably as good as any health organization of the country uses, yet it is also known that at the period when the Board commenced its operation—over a quarter of a century ago—there were no precedents applicable to this section of the country that could be followed or patterned after, in the formation of rules, adoption of methods, or providing for a systematic accounting of funds, which would conservatively meet with all demands of a rational supervision of health affairs, and a control of communicable disease and disease agencies.

The plan how best to serve the people, conserve commercial interests and harmonize apparently conflicting business relations had to be thought out as well as methods for properly accounting for the public funds. For twenty-five years and over, the methods formulated at the organization of the Board have been closely followed and it is believed with good results, but the time has come it is also thought and believed when there should be some change made in administration—a concentration had of energies so to speak, and a discarding of obsolete measures which statutes and rules now provide for, and which at the time when enacted seemed to be demanded and required—but which are now no longer needed. So the Executive Officer desired advice and recommendations in remodelling statutes, and rules and regulations, and called to his assistance the United States Public Health Service.

Dr. Carroll Fox has been industriously studying the plan of health management in Florida since December, which insures a report, when completed of not only most interesting reading but exceedingly useful advice and information and from which the State Health Officer hopes at the next annual meeting to present to the Board a scheme of reorganization of the health department of Florida, which will make the State rank foremost in the list of states in the Union, for a complete, and compact system of sanitary and health administration.

An audit of financial transactions of a firm, corporation or government is a most admirable way to discover discrepancies of money responsibility as well as loose methods and careless management. This method of investigation is

Sanitary
Survey of
the State.

applicable, too, to policies followed by boards of various kinds, and an audit in the way of an investigation into measures and methods of management pursued in administering public affairs is calculated to stimulate activity in certain directions as well as to correct errors.

It was with the idea of "seeing ourselves as others see us" that this request was made of the Surgeon-General of the United States Public Health Service to detail an officer of his corps to make a "survey" of the work of the State Board of Health of Florida, its methods, and management, and if possible to detail for this purpose Dr. Fox, whose experience in the special line of Public Health work would be exceedingly beneficial and valuable to the executive office of the Florida State Board of Health.

The State Health Officer has felt for some years that the health department of Florida needed reorganization and the statutes of the state respecting sanitary administration should be rewritten and compiled. When the State Board of Health was organized under the statute of February 20, 1889, the joint committee from the Senate and House who framed the act, seemingly had but one idea in mind when constructing the law which brought the State Board of Health into existence, and that was YELLOW FEVER; how to prevent the introduction of the disease into the State, and how to control and prevent the spread should by any means the disease gain an entrance into the State.

Where YELLOW FEVER was not specifically mentioned in any section of the enacted law it could be found, nevertheless by the attentive reader who could not fail to see the fear of the disease looming up between the lines of the written enactment.

During the closing days, and it might almost be said hours of the Legislature of 1915, a bill was enacted dealing with the "Medical Inspection of School Children." As a matter of record, it is proper that a history of this measure should be given to the public, for seemingly it is misinformed as to its conception and passage.

Dr. Oliver J. Miller of Sanford, had drawn a bill for a Commission to take in hand the "Medical Inspection of School Children" which provided for a Commissioner to supervise and control such an organization. This measure did not apparently interest or meet with approbation of the legislative Body, principally because the Legislature of 1915

Medical In-
spection of
School
Children.

was opposed to creating any more commissions. The State Health Officer was present at Tallahassee during the whole of the session, at the urgent written request of the Chairman of the Senate and House Committees on Public Health, and although spoken to about this measure did not actively support the proposition, not because the motives were not good and the objects in direct line of progressive health betterment, and especially that of the growing child, but for the reason that the State Board of Health had several important bills before the Legislature which were thought to be of more consequence to the welfare and health of the people of the State, and it was feared that asking too much might result in jeopardizing all. However, when consulted the principle of looking after the school children was commended as an advance in sanitation for the youth of the State. As has been remarked, the proposition did not meet with favor by the Legislators, so the Honorable Forrest Lake of Seminole County re-drafted the bill placing the operation of the amended bill under the State Board of Health and also providing for the payment of the physician inspectors from the funds of the State Board of Health. Neither the State Board of Health nor the State Health Officer were consulted about this latter measure and the bill was upon final passage when the State Health Officer happening into the House during a morning session heard it discussed on the floor of that body prior to its passage. Mr. Lake at that time frankly stated from his seat that the State Board of Health had nothing whatever to do with the introduction of the bill and should not be charged with its introduction. The objections to the bill were two: First it created a division of authority. The County Commissioners are to select the physicians to be appointed and the State Board of Health is then to appoint them and pay for their services from the funds of the State Board of Health. Second: To properly fulfill the spirit of the Act, it would require a fund of nearly one hundred thousand dollars to carry out its provision with benefit to the pupil, and the latter was utterly impossible without funds; and the State Board of Health's treasury is not equal to such a drain. The impracticability of the provisions of the Act are well shown in a letter from the Executive Officer to the President of the State Board of Health, which at the time was printed in the "Health Notes," but is reproduced as a matter of record

and as bearing upon the transactions of the Executive Officer for the year 1915.

Jacksonville, Fla., July 6, 1915.

Hon. Frank J. Fearnside,
President, State Board of Health,
Palatka, Fla.

My dear Mr. Fearnside:—

Last Sunday morning while it was quiet in the office with the assistance of Dr. Dobbs and Mr. Voorhees, the enclosed copy of the rules and regulations for the medical inspection of school children, provided for in Chapter 6829, (No. 23) of the laws of 1915, were formulated, and which I hope will meet with your approval, and the other members of the Board.

I think that the rules, nine in number, comprise everything that is needful in the way of specifying, not only the points of examination which the inspectors should direct their attention to in carrying out the intent of the law, but also disposes of the question of assistants to inspectors and their compensation.

There has been a system of medical school inspection in Jacksonville for some time, and I have taken advantage of Dr. Terry's experience and profited by some of his suggestions in formulating a state wide regulation for this purpose.

Now, while formulating these rules, Dr. Dobbs, Mr. Voorhees, and myself considered a great many phases of this question and I am jotting down for you, certain facts which I think are worthy of consideration and which to my mind, make the application of this law in its effectiveness totally impracticable. Let me enumerate:

First. The law provides that no Inspector shall have under his jurisdiction more than 2,500 school children. Basing our estimates upon the 1910 census, we find that of the 47 counties which existed at that time 28 will require only one Inspector, 13 will require two, 6 will require 3, one will require 5, and one will require 6; making a total for the entire State of 77 inspectors. Reducing this number by two (the number of physicians employed in the city of Jacksonville, under conditions specified in the Act) we have left 75 inspectors who would be paid from the State Board of Health fund. The school population, has, of course, greatly increased since 1910—probably doubled—but in order that this estimate of cost may be most conservative, this increase of school children will be disregarded, and the cost will be based solely upon the 1910 census.

Second. At a very liberal estimate, we may safely say that one inspector cannot properly and efficiently examine more than 25 pupils on one school day of five hours. According to these figures each inspector (with 2,500 children under his care) would require 125 days for the completion of the examinations.

Third. As these appointments will necessarily have to be filled by practicing physicians, and as this work as above shown will require such physicians' entire time for 125 days, or approximately four months, during which time it will be impossible for him to direct his attention toward his private practice, and as the expense incident to the work will be a considerable item, the remuneration of each inspector should be not less than \$200.00 per month. The remuneration of Legislators (under somewhat similar conditions as regards loss of time from private interests) amounts to practically this figure, and it would seem that this is an eminently fair charge for this work of school inspection. At \$200 per month, or \$800.00 for

the necessary four months' work, the cost for the entire State would amount to \$60,000.00 annually. (And these figures, it must still be borne in mind, are based upon the 1910 census, which is admittedly far too low).

Fourth. That this estimate is not at all excessive is shown by the following statements, which are quoted from a volume entitled "Medical Inspection of Schools", by Gulick and Ayers, and published by the New York Charities Publication Committee. It is based upon facts disclosed in the "Backward Children Investigation" which was supported by the Russel Sage Foundation "for the purpose of studying so-called 'retardation' among school children"; and may certainly be accepted as authoritative. On page 1 and 2 of this volume, under the heading, "Significant Facts," we find the following:

"Systems themselves vary so widely in scope and thoroughness here in America as to range in annual cost per capita from half a cent to a dollar and twenty-two cents.

Clear distinction must be made between medical inspection solely for the detection of communicable diseases and that physical examination which aims to discover defects, diseases and physical conditions. The one relates primarily to the immediate protection of the community, while the other looks to securing and maintaining the health and vitality of the individual.

"Medical inspection for the detection of contagious diseases can be adequately performed at an annual cost of about fifteen cents per capita, while physical examinations similarly performed, and including the inspection for the detection of communicable diseases, costs about fifty cents."

Fifth. Applying this check to our own estimate, we find that according to the 1910 federal census there were at that time 138,659 children attending the various public and private schools in Florida. At the figure quoted above, medical inspection such as is provided for by the recent Florida law would cost the State \$64,329 annually. The striking similarity between these two estimates, which were arrived at through entirely different methods of computation, should remove any doubts as to their probable accuracy.

It has, however, occurred to us that it might be a most excellent plan to suggest to the Board of Education, or the County Commissioners in the counties desiring to institute medical inspection, to provide for medical examination by teachers and principals in so far as it may be done by them. Of course, I understand that the teachers and principals of schools are not medical men and could not be expected, nor would their work be acceptable in determining questions of vision, hearing, throat complications, such as adenoids, or the diagnosis of communicable, contagious disorders, such as diphtheria, measles, whooping cough, etc., but the teachers or principals could determine upon the general health condition of the child, state of cleanliness, and freedom of vermin, or probably hookworm. The State Board of Health, could, of course, have forms furnished and issued as pamphlets, of detailed instructions to teachers, similar to those used in Massachusetts. These pamphlets would give a number of simple and readily understood instructions by which the teachers would be able to make satisfactorily a number of the examinations provided for in the rules which have been drawn up, and which are enclosed.

A similar plan seems to have proved satisfactory in Massachusetts, where the teachers make most of the examinations except those of a strictly medical nature, which I have already alluded to, and which require a physician's experience and knowledge to make examinations to determine contagious disease. I merely mention this, as a

suggestion or as an alternative action in case the Board considers that the other plan is impracticable of execution, which I think, on account of the excessive cost makes it so.

One of the great difficulties and errors into which our legislators fall in enacting laws of this nature is in arrogating to themselves a specific knowledge for the carrying out of public health work, without some consultation with those who have had experience or who have given thought to details of expense.

I have tried to draft these rules as speedily as possible in accordance with my promise to you when seeing you last Friday, and will be very glad to hear from you as soon as you have thought over the matter.

Very truly yours,
(Signed.) JOSEPH Y. PORTER,
State Health Officer.

At a called special meeting of the Board in Jacksonville August 30, 1915, for the purpose of considering the rules and requirements which the Executive Office had formulated and which the Act called for, and the impossibility of carrying out in an efficient and effective manner a system of medical inspection of school children, under the present statute, such as the spirit of the law seemed to contemplate, the subject was thoroughly discussed and thrashed out in all of its bearings and from all angles of argument. It was finally decided on the advice of the attorney of the Board, Hon. E. J. L'Engle, that it was the duty of the Board to make an honest effort, however feeble, to fulfill the wishes and will of the legislature, and in order to do this within the finances of the Board, a small sum should be specified as payment of service. Accordingly a resolution was adopted to this effect and a maximum fee of examination at ten cents per child was decided upon. The County Commissioners of the several counties were informed of the action of the Board and requested to nominate inspectors, who, if acceptable to the Executive Officer would be appointed, would be supplied with blanks and forms and would be paid in accordance with the number of children inspected at the rate specified in the resolution, when certified to by the Superintendents of Public Instruction of the county in which the inspections were made. This is the practice and system at present. As the examinations only commenced in October, the beginning of the school year, there has not been sufficient time to know whether any good is or will result from this law in its present shape. It is more than probable that a change will have to be made by the next Legislature, if it is desired to continue its operation and possibly the whole

system differently arranged, eliminating the medical feature of the examination and placing the operation of the proposition under visiting district nurses, will be recommended as a substitute.

Vital statistics in Florida has in the past year, made greater advancement than ever before. In 1899 the State Legislature passed a law creating a Bureau of Vital Statistics but it was very defective, and after several years in which only spasmodic efforts were made for its enforcement, it dropped into disuse, and from 1905 to 1913 Florida had practically no reported vital statistics, worth recording.

In 1913 interest in this work was revived and Mr. W. Voorhees was appointed Vital Statistician. In August of that year an offer was made to all cities and towns of over 500 population that if they would pass ordinances for the registration of births and deaths and make prompt and 90 per cent accurate reports, the State Board of Health would pay 25 cents for each certificate returned in accordance with certain prescribed rules and regulations.

In August 1914 this offer was extended to all municipalities regardless of population, and at the close of the year, fifty-two, out of a total of over two hundred cities and towns, had placed this ordinance on their statute books. Of this number only twenty-seven were reporting with sufficient regularity and accuracy to enable the bureau to make a tabulation, and although birth and death rates were computed at that time, they were offered with the caution that too much stress could not be placed on them until they had been proven correct after better registration was secured and from tabulations extending over a longer period of time.

According to the 1910 Federal Census there were twenty-nine cities of over 2,000 population in Florida and for the sake of an easy designation of this class of cities, they are referred to in the various tabulations made up to this time as the Registration cities of Florida.

During the first part of 1915 a vigorous campaign was waged with the purpose in view of having the Model Ordinance, which is wholly in accord with the Model Vital Statistics Law, passed by as many of the municipalities as possible, believing that if sufficient interest could be aroused throughout the State, it would argue well for the passage of the bill to create a Bureau of Vital Statistics, which had been prepared for presentation to the Legislature.

Vital Statistics.

The result of this campaign was that during 1915 sixty-six municipalities passed the Model Ordinance and began the collection of Vital Statistics, making a total of 118 complying with this ordinance, and of which 93 are reporting with fair regularity. In most cases the reports cover approximately 90 per cent of the births and deaths occurring. In the smaller communities, however, serious drawbacks are experienced on account of improperly made out certificates, some of the most important items not being filled in, and in death certificates, symptoms being very often given instead of the real cause of the disease, and in many instances no cause at all is shown. The coroners of the State as a usual thing give "Natural Causes" regardless of the real cause of death.

On June 4th, 1915, the State Vital Statistics bill, which had been passed by the legislature several days previously, was signed by the Governor and became a law. This law is, with slight changes, the same as the Model State Law for Vital Statistics which has the endorsement of the Bureau of the Census, the Children's Bureau, the American Medical Association and other public health organizations, and Florida has every reason to expect accurate and complete registration and to hope for admission to the Registration Area of the United States, at least for 1917.

The illness and subsequent death on December 6th of Mr. Voorhees, the Vital Statistician, has delayed the districting of the State and the appointment of registrars under the State law and for this reason, the vital statistics reports for 1915 are only from those municipalities which require registration under ordinance.

Circular letters and blank forms (see copies at end of this report) have been prepared and are being sent out at the present time with a view to appointing registrars in every municipality, and very soon after the first of the year this work will be pushed to completion. As soon as this is done, the rural territory immediately surrounding the municipalities will be thrown into the local registrar, and the more distant rural sections will be districted and registrars appointed for each district.

It is hoped that by July 1st the entire State will be covered by registrars and that at the close of 1916 a more complete tabulation may be presented for consideration.

Antagonism to this law has been displayed by some classes, including a number of physicians and undertakers, regardless of the necessity for accurate vital statistics in connection with public health work, but the majority of the thinking people of all classes and pursuits are anxious to see Florida have accurate vital statistics, and those whose duty it is to make reports will do so either willingly or because they will be brought to understand that the Bureau of Vital Statistics intends to enforce the law regardless of who the offender may be.

Of the 29 registration cities of Florida, twenty-seven have reported during 1915 with sufficient accuracy to enable a tabulation to be made by principal causes or groups of causes, by color of the deaths occurring during 1915, with a comparison of the totals of 1915 with totals for 1914. The two registration cities not included in this tabulation are, Lake City which only reported part of the year, and Live Oak from which no reports have been received. There will be noted in this tabulation (Table No. 1) variations which are due in some cases to better registration, in others to a falling off of interest and a laxity in enforcing the ordinance. In others there are variations which are caused by change in population although the registration has been accurate. Especially is the latter the case in those cities on the East Coast whose populations have been increased by the construction forces of the Florida East Coast Railway who were working on the over-sea extension, and the consequent decrease when this work was completed. It will also be noted that only white and colored deaths have been shown in this table. There is only a negligible number of other races, and the Bureau has included in colored all races not caucasian. Tables 2 and 3 are a recapitulation or summary of Table No. 1, prepared in order that totals for 1915 and 1914 may be more easily studied. At the close of the first half of the year there were forty-five cities and towns of under 2000 population that were reporting vital statistics with more or less regularity. At the close of the year there are sixty-six of the smaller communities reporting. Table No. 4 shows the births and deaths by color reported by these smaller cities during the year. It will be noted that some are shown as not transmitting reports, but in almost every case where this notation is made the Model Ordinance has only recently been passed and is not yet effec-

tive. By referring to the foot notes to this table, the result of the campaign waged during the first months of the year for the passage of ordinances may readily be followed month by month.

Table No. 5 shows the proportion per 1,000 deaths by color from certain principal causes or groups of causes of the 27 reporting cities, with a comparison of the Combined City, Jacksonville, Tampa, Pensacola and Key West, and also the Registration Area of the United States as given out by the United States Bureau of the Census in the mortality report for 1913, the last published.

These proportions avoid the use of population figures, but they should be read with the knowledge that in the registration cities of Florida the deaths are but 2,336 white and 2169 colored in a total population of approximately 300,000, while there were in round numbers 820,000 white and 70,000 colored deaths in the Registration Area of the United States, with a population of 63,000,000.

To indicate how carefully such figures should be taken for short periods one need only note that there were but 95 colored deaths in the registration area from scarlet fever in 1913. In addition to this the diagnosed causes of death are not always correct as indicated by the disproportion between white and colored deaths in the Registration area from certain causes, notably, scarlet fever and diphtheria and croup.

But after making all allowances it is interesting and encouraging to see by comparison that Florida is not an unhealthy state and that really some of the most feared diseases are less prevalent in this State than in the large territory embraced by the Registration Area.

This leads us to the hopeful conclusion that when, under the State Law, accurate vital statistics are a reality, our State's health conditions will be shown equal to if not better than those of a large part of the United States.

Death of
Mr. Voorhees.

The Constitution of the State of Florida allows or permits that the personnel of the State Board of Health be changed every four years, as each new Governor may desire to appoint persons of his own selection to supervise the health administration of the State. So, too, do employees of the Board change, but with rare instances only at their own request to possibly better their financial status or engage in more enjoyable positions.

When the change comes through the summons of the Silent Messenger, the loss is the more keenly felt, because of helplessness of those left, to prevent by possible argument the severance of pleasant associations and companionable connections. In the work of the State Board of Health each one employed is an Associate worker in a supreme effort to do something for the good of the human family, by raising the standard of living, so that the days of Man may be long and healthful. Each one from the Executive Officer to the office boy and janitor is expected to put forth his best efforts in the direction of his special duty, and it is believed that each one does. In this coterie of brotherhood there was one who for enthusiasm in his special work and earnest desire to acquire all information possible to make him proficient is to be commended. Patiently and laboriously he labored and toiled in a field that at first was new and perplexing to him, but assiduously and perseveringly he held to the object of his seeking until he had reached a point in his investigation that would have brought credit to himself and reputation to the Board.

Mr. Warder Voorhees was not only a student with a wonderful fund of information but was possessed of an analytical mind which enabled him without difficulty or weariness to compile intelligently statistics from sparsely worded reports and group the information thus acquired into facts, which were both interesting and instructive. He was fast becoming an exceedingly useful and valuable co-worker in the system of sanitary and health management of the State, and his almost sudden taking off, in the prime of life and usefulness is a source of regret and sorrow to his many friends in the Board and more especially to those who are deeply interested in gathering together the vital statistics of the state into a system of well grounded and well understood methods of life and death book-keeping. The summons came at a time when daylight was just beginning to peep into the darkness of a chaos in the Division of vital Statistics, and from which he was bringing an important but disorganized division into usefulness. The Executive Officer of the Board would pay a tribute to the worth of a man who he believes was oftentimes not understood, in his purposes and intentions, as he should have been, and whose worth had he lived would have been greatly appreciated.

Recommendations.

The Executive Officer has but one recommendation to make this year. This single one relates altogether to the enforcement of the statutes and rules and regulations of the Board. There is ample law both in statute enactments as well as in the rules and regulations of the Board to exclude disease and lessen sickness and to have the people understand what is required of them and to aid them in these matters. The difficulty and the hindrance is not in having too few laws on sanitary and health subjects, but in the lack of inclination of those who are charged by Constitutional and statutory obligations to see that the laws are observed. It is a waste of time to write needed statutes regulating sanitary requirements, and it is also a squandering of energy for the representatives of the people to present by argument in legislative session, these necessities for healthful living and then enact them into laws, IF those whose duty it is to see that the laws are observed, are indifferent to enforcing them.

What benefit is it to the people, if they, through their representatives in the legislature say that hotels boarding houses, restaurants, lunch counters, fruit stands, and meat markets, and in fact every place where food that is offered for sale and can be eaten uncooked, shall be properly screened with wire mesh of a certain size to exclude flies, if there is no attempt made to enforce the ordinary or statutory law?

Why shall the representatives of the people in the legislature recognize the danger which flies are to a community as carriers of disease germs, and appreciating this peril to health, provide that surface closets shall be screened and then have the law officers apathetically treat the enactments as so many "scraps of paper" meaning nothing? Therefore, when it is advised that the State Board of Health in full executive session and in annual meeting shall seriously consider the spirit of unconcernedness manifested by those whose duty it is to see that the laws of the State are followed and conformed to, the State Health Officer feels that he is but fulfilling an obligation to the people, for the State Board of Health not being a judicial body, must rely upon the judicial power of the State government to cooperate in helping to keep the people well. How best to stimulate to activity, those whose duty it is to assist in the execution of the health laws must be left to the judg-

ment and discretion of the Board. The State Health Officer feels that he has completed a duty when the matter is brought to the attention of the Board.

In closing this paper I wish to express my appreciation of the support given by the Board in the work of the year and for the confidence shown in my judgment and management, likewise I desire to thank each co-laborer in the Executive Office for the cheerful co-operation given, and willing and efficient manner in which the duty assigned to each member of the office has been performed.

Conclusions.

Dear Sir:—

Under the State Law for the collection of Vital Statistics, Chapter 6892, Acts of Legislature of 1915, Local Registrars will be immediately appointed in the incorporated municipalities, and it is desired by this office that Registrars who have previously acted under local ordinances now accept appointment under the State Law.

Letters sent
Registrars of
Vital Statistics

In any municipality which has no ordinance for the registration of births and deaths, the City Clerk will be appointed, under the State Law, Local Registrar; provided that such appointment meets with the approval of the municipal authorities. Unless this office is advised to the contrary on or before January 10th, formal notification of such appointment will be mailed to this official, together with a form of acceptance which is to be signed by him and returned to this office.

Each Local Registrar shall immediately appoint a Deputy Registrar to serve in case of the absence or illness of the Local Registrar. The deputy must signify his acceptance of the appointment on form which will be provided for this purpose, which must be returned to this office for record.

If there are any objections to the appointments as indicated, kindly advise at once.

Yours very truly,
(Signed) JOSEPH Y. PORTER,
State Health Officer and
State Registrar of Vital Statistics.

KNOW ALL MEN BY THESE PRESENTS

That _____ has been appointed LOCAL REGISTRAR OF VITAL STATISTICS for municipality of _____, State of Florida, this _____ day of _____ A. D. 1916, and as such is hereby charged with the enforcement of the law relating to the registration of births and deaths in said municipality as provided in Chapter 6892, Laws of Florida, Acts of 1915, which provides for the registration of births and deaths, the reporting of same to the State Registrar monthly, and the issuing of burial or removal permits and such other duties as may be prescribed from time to time in the rules and regulations of the State Board of Health and instructions issued by the State Health Officer, with penalties for failure to comply.

(Signed) JOSEPH Y. PORTER,
State Health Officer and State Registrar of Vital Statistics.

I, _____ of _____, Florida, hereby accept the appointment as LOCAL REGISTRAR OF VITAL STATISTICS in and for said municipality and I hereby bind myself to discharge the duties of my position according to law and to observe all rules and regulations of the State Board of Health of Florida, and all instructions which may be issued from time to time by the State Health Officer.

I appoint _____ as my deputy to serve in the event of my illness or absence, and his acceptance is herewith enclosed.

In witness whereof I have hereunto affixed my signature this _____ day of _____ A. D. 1916.

Official Position

Witness to signature

I, _____ of _____, Florida, hereby accept the appointment as DEPUTY REGISTRAR OF VITAL STATISTICS, in and for said municipality, and I hereby bind myself to act during the illness or absence of the Local Registrar, and while so acting to discharge the duties of my position according to law and to observe all rules and regulations of the State Board of Health and instructions of the State Health Officer.

In witness whereof I have hereunto affixed my signature this _____ day of _____ A. D. 1916.

Address

Witness to signature

Respectfully submitted,

JOSEPH Y. PORTER, M. D.,

State Health Officer.

STATEMENT OF EXPENDITURES OF THE STATE BOARD OF HEALTH OF FLORIDA FOR THE YEAR ENDED DECEMBER 31st, 1915.

ADMINISTRATION							EPIDEMIOLOGICAL					LABORATORIES											
	Board of Health	Office of the Secretary	General Expenses	Building and Grounds	Clerical	Library	Field Medical Officers	Public Health Nurses including Anti-tuberculosis Activities	Expenses account Smallpox including Isolation Hospitals	Health Supervision of Schools	Sanitation	Education	Vital Statistics Division	Treatment of Crippled Children	Veterinary Division	Main (Jacksonville)	Miami	Tampa	Pensacola	Tallahassee	Key West	Total	
Ammonia for Ice Machine																14.50						14.50	
Animal food																114.76						114.76	
Animals, lab.																30.75	4.00	20.03		.10		48.95	
Antitoxins and Vaccines							1782.95		975.00							20456.80			3.75			23214.75	
Attorney's fees			25.00																			25.00	
Books, Periodicals and Reprints			30.00			380.34		2.40				236.55										250.00	
Charts, maps, plans, etc.		2.25					52.20	41.90		17.05		290.50					.10				1.25	650.64	
Containers, mailing outfits, etc.												314.70				115.40	271.90	6.30	8.55	.50	.25	422.83	
Drugs, chemicals & disinfectants									114.06			1.00				11.30	216.60	13.14	153.26	38.24	117.33	8.18	724.40
Dues to Societies & Associations			20.00																			20.00	
Electrical supplies			11.75									95.09					.54	9.25	.65	1.77		119.05	
Emergency Services				23.30					84.00			223.75		93.00		56.00		4.55				484.60	
Express, freight and drayage			119.14				1.90		.26	5.64		675.24	1.17			243.25	156.04	21.88	57.48	26.29	25.02	3.00	1336.31
Furniture									10.05			188.23					130.40	153.05	100.00	505.28	25.00	3.60	1105.56
Gasoline												12.85											22.90
Glanders, reimbursement for																1075.00						1075.00	
Grounds, care of				263.18															18.60				281.78
Heat, water and electricity				396.39					42.55			37.02					835.79	24.50	266.21	75.89	26.50	59.55	1264.40
Hospitals, maintenance of patients (including supplies and apparatus)									844.04					5826.50									6670.54
Household furnishings and supplies												446.31											446.31
Installation of equipment												85.63				44.04	41.84		28.45		8.43	2.20	210.59
Insurance, buildings and fixtures			5.00						119.65			515.00					12.50		169.00	33.60			854.75
Laboratory supplies																20.15	1023.46	147.01	160.59	124.95	239.47	26.43	1742.06
Laundry			13.50									16.93					46.80	10.34	22.49	9.75	5.73		125.54
Mimeograph and repairs			4.50																				4.50
Miscellaneous	73.25		80.80	.25			12.00		28.71		3.00	9.85				13.64	20.60		.30	25.80	4.50	3.55	276.25
Models and repairs												194.00											194.00
Moving picture machine and films												838.80											838.80
New Construction				176.60			5.95			.50		28.55	16.95						129.22	13278.78			13584.60
Office supplies			43.55				132.01																85.50
Pellagra treatment																							132.01
Photograph cuts and X-ray plates			122.55					7.12				181.61		15.00		3.10							329.38
Press clippings						60.00																	60.00
Printing			1060.67			4.50	29.24	22.75		368.05	15.75	4930.18	925.67	3.25		90.65	71.90	31.50	3.10	13.25	45.50		7615.96
Registrars' fees													2421.15										2421.15
Reimbursement, care of indigent smallpox patients									467.65														467.65
Repairs and alterations				173.17					15.45							4.33	6.65		136.04	.75			434.34
Repairs to apparatus													.50				80.40	3.60	16.33		1.00		101.83
Rent							252.00					105.00											597.00
Salaries	630.00	4999.92		954.00	5090.11		16933.08	5000.00	2164.00		3400.00	1285.00	1555.00	1250.00	5804.27	8236.16	2281.59	5182.61	2828.15	2364.92		240.00	70058.81
Scientific instruments and apparatus																	397.61	112.51	181.81	160.92	544.46	33.38	1430.69
Screening					2.50				96.81														96.81
Signs							13.00																13.00
Stamps, P. O. Box			540.91					50.00	1.00	808.00		611.90	660.00		200.00	250.00	29.72	66.32	36.48	41.01			3295.34
Stationery	39.65		483.90				28.55	49.50				48.55	145.51		51.67	68.45	17.75	32.90	21.40	9.45	7.10		1004.38
Stereomograph and slides												587.43											587.43
Telegraph and Telephones			486.30						188.91			5.66				78.85	32.10	54.31	80.96	41.43	36.00		1004.52
Transportation indigent smallpox patients to isolation hospitals									98.50														98.50
Traveling expenses	207.40	2314.90										1261.30	176.24		1073.57	350.02	60.84	88.73	74.78	68.67	2.80		11093.14
Typewriters and repairs		40.05			177.21		2260.28	3143.61			10.00	83.03	93.15		61.03					13.00			467.47
Vaccinations									2.00														2.00
Totals	950.30	7357.12	3047.57	1989.39	5267.32	444.84	21503.16	8317.28	5252.64	1199.24	3428.75	13408.11	6094.84	7187.75	29339.28	11959.08	2950.47	6901.98	17358.77	3594.09	427.04		157979.02

TABLE 1.
DEATHS BY COLOR IN THE REGISTRATION CITIES OF FLORIDA BY PRINCIPAL CAUSES OR GROUPS OF CAUSES FOR 1915 COMPARED WITH DEATHS BY COLOR FOR 1914. ALSO BIRTHS BY COLOR IN SAME CITIES FOR 1915 COMPARED WITH THOSE FOR 1914.

	Jacksonville		Tampa		Pensacola		Key West		West Tampa		Gainesville		Miami	
	Whi.	Col. Tot.	Whi.	Col. Tot.	Whi.	Col. Tot.	Whi.	Col. Tot.	Whi.	Col. Tot.	Whi.	Col. Tot.	Whi.	Col. Tot.
Typhoid	9	5 14	10	2 12	4	3 7	4	5 9	3	0 3	0	2 2	5	2 7
Malaria	2	2 4	3	3 6	0	6 6	0	1 1	1	0 1	--	--	0	1 1
Measles	--	--	9	0 9	--	--	--	--	--	--	--	--	--	--
Scarlet Fever	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Whooping Cough	4	2 6	1	1 2	2	0 2	--	--	--	--	--	--	--	--
Diphtheria & Croup	8	8 16	5	1 6	1	0 1	--	--	2	0 2	0	1 1	--	--
Influenza	9	6 15	4	3 7	2	1 3	--	--	1	0 1	3	0 3	2	0 2
Pulmonary Tuberculosis	32	126 158	34	45 79	13	38 51	23	13 36	12	1 13	2	7 9	9	13 22
Tuberculosis, other forms	3	3 6	7	5 12	--	--	1	1 2	1	0 1	--	--	1	1 2
Meningitis	4	0 4	8	0 8	1	0 1	2	2 4	1	0 1	0	2 2	1	2 3
Bronchitis	3	1 4	2	4 6	1	2 3	2	2 4	2	0 2	--	--	1	4 5
Pneumonia, all forms	28	52 80	29	11 40	9	13 22	12	6 18	6	0 6	5	4 9	1	10 11
Diarrhoea and Enteritis	16	21 37	45	2 47	7	8 15	9	14 23	11	2 13	3	0 3	5	12 17
Under 2 years	51	64 115	23	13 36	13	14 27	8	1 9	3	3 5	2	1 3	11	18 29
Violent, exc'd'g suicide	10	1 11	12	3 15	2	0 2	3	0 3	2	1 3	--	--	2	1 3
Suicide	--	--	--	--	--	--	--	--	--	--	--	--	--	--
All other causes	351	533 884	306	156 462	121	156 277	129	47 176	41	14 55	27	45 72	76	65 141
Total Deaths 1915	530	824 1354	498	249 747	176	241 417	193	92 285	86	20 106	42	62 104	114	129 243
Total Deaths 1914	517	787 1304	522	293 815	186	247 433	241	100 341	109	27 136	32	60 92	46	41 87
Total Births 1915	947	724 1671	1164	220 1384	357	188 545	343	106 449	301	29 330	86	42 128	210	135 345
Total Births 1914	1041	830 1871	1146	236 1382	381	213 594	394	129 523	341	28 369	76	48 124	98	48 146

NOTE.—Miami, only half year report for 1914.

TABLE 1.—(Continued)

DEATHS BY COLOR IN THE REGISTRATION CITIES OF FLORIDA BY PRINCIPAL CAUSES OR GROUPS OF CAUSES FOR 1915 COMPARED WITH DEATHS BY COLOR FOR 1914. ALSO BIRTHS BY COLOR IN SAME CITIES FOR 1915 COMPARED WITH THOSE FOR 1914.

	St. Augustine	Tallahassee	St. Petersburg	Lakeland	Ocala	Orlando	Sanford
	Whi. Col. Tot.	Whi. Col. Tot.	Whi. Col. Tot.	Whi. Col. Tot.	Whi. Col. Tot.	Whi. Col. Tot.	Whi. Col. Tot.
Typhoid	1	2					
Malaria	0	1					
Measles	--	--					
Scarlet Fever	--	--					
Whooping Cough	--	--					
Diphtheria and Croup	0	1					
Influenza	--	--					
Pulmonary Tuberculosis	8	6	14				
Tuberculosis, other forms	--	--	--				
Meningitis	2	0	2				
Erysipelas	--	--	--				
Bronchitis	--	--	--				
Diarrhoea and Enteritis	--	--	--				
Pneumonia, all forms	2	0	2				
under 2 years	0	1	1				
Violent, exc'd'g suicide	4	7	11				
Suicide	1	0	1				
All other causes	43	29	72				
Total deaths 1915	61	46	107				
Total deaths 1914	49	43	92				
Total births 1915	74	32	106				
Total births 1914	65	14	79				

TABLE 1.—(Continued)

DEATHS BY COLOR IN THE REGISTRATION CITIES OF FLORIDA BY PRINCIPAL CAUSES OR GROUPS OF CAUSES FOR 1915 COMPARED WITH DEATHS BY COLOR FOR 1914. ALSO BIRTHS BY COLOR IN SAME CITIES FOR 1915 COMPARED WITH THOSE FOR 1914.

	Quincy		Palatka		Daytona		Fernandina		DeLand		Plant City		Fort Myers	
	Whi. Col.	Tot.	Whi.	Col. Tot.	Whi.	Col. Tot.	Whi.	Col. Tot.	Whi.	Col. Tot.	Whi.	Col. Tot.	Whi.	Col. Tot.
Typhoid	2	0	1	0	1	--	--	0	1	1	1	1	2	--
Malaria	0	2	0	1	1	--	--	0	1	1	--	--	--	0
Measles	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Scarlet Fever	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Whooping Cough	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diphtheria and Croup	--	--	2	0	2	--	--	--	--	--	--	--	--	1
Influenza	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Pulmonary Tuberculosis	0	4	1	9	10	2	2	4	0	5	1	3	4	1
Tuberculosis, other forms	--	--	--	--	--	--	--	--	--	--	--	--	--	3
Meningitis	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Enteritis	--	--	1	0	1	--	--	--	--	--	--	--	--	1
Brucellosis	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Pneumonia, all forms	--	--	2	2	4	3	0	3	1	1	2	--	--	1
Diarrhoea and Enteritis	--	--	--	--	--	--	--	--	--	--	--	--	--	0
under 2 years	0	1	--	--	--	2	0	2	--	5	7	0	1	2
Violent, exc'd g suicide	0	1	2	4	6	--	--	--	2	5	7	0	2	1
Suicide	--	--	--	--	--	--	--	--	--	--	--	--	--	1
All other causes	10	5	15	28	56	18	11	29	10	25	35	19	11	22
Total deaths 1915	12	13	25	37	44	81	25	13	38	13	39	52	24	18
Total deaths 1914	14	17	31	31	36	67	25	19	44	14	64	78	22	13
Total births 1915	33	2	35	51	40	91	35	29	64	8	42	50	45	12
Total births 1914	26	5	31	5	23	28	32	26	58	14	58	72	43	10

Note.—Fort Myers, half year report for 1914.

TABLE 1.—(Continued)

DEATHS BY COLOR IN THE REGISTRATION CITIES OF FLORIDA BY PRINCIPAL CAUSES OR GROUPS OF CAUSES FOR 1915 COMPARED WITH DEATHS BY COLOR FOR 1914. ALSO BIRTHS BY COLOR IN SAME CITIES FOR 1915 COMPARED WITH THOSE FOR 1914.

	Apalachicola		Bartow		Tarpon Springs		DeFuniak Springs		Kissimmee		Marianna		
	Whi.	Col. Tot.	Whi.	Col. Tot.	Whi.	Col. Tot.	Whi.	Col. Tot.	Whi.	Col. Tot.	Whi.	Col. Tot.	
Typhoid	--	--	--	--	1	0	1	2	0	2	1	0	1
Malaria	1	0	--	--	0	1	1	1	0	1	--	0	1
Measles	--	--	--	--	--	--	--	--	--	--	--	--	--
Scarlet Fever	--	--	--	--	--	--	--	--	--	--	--	--	--
Whooping Cough	--	--	--	--	--	--	--	--	--	--	--	--	--
Diphtheria and Croup	--	--	1	0	1	0	1	2	1	3	--	--	--
Influenza	1	0	--	--	--	--	--	--	--	--	--	--	--
Pulmonary Tuberculosis	2	5	1	0	1	1	4	5	1	0	1	0	2
Tuberculosis, other forms	--	--	--	--	--	--	--	--	--	--	--	--	--
Meningitis	1	0	1	0	1	0	1	--	--	--	--	--	--
Bronchitis	--	--	--	--	--	--	--	--	--	--	--	--	--
Pneumonia, all forms	--	--	--	--	0	1	1	1	0	1	--	0	1
Diarrhoea and Enteritis	1	0	--	--	0	1	1	1	0	2	0	1	0
under 2 years	1	4	2	1	5	1	6	1	0	1	1	0	1
Violent, excluding suicide	--	--	1	0	1	--	--	--	--	--	--	--	--
Suicide	7	35	42	9	4	13	--	--	--	--	--	--	--
All other causes	--	--	--	--	--	--	9	8	17	10	10	20	17
Total deaths 1915	15	44	59	15	5	20	17	16	33	20	11	31	17
Total deaths 1914	21	34	55	17	8	25	28	8	36	19	15	34	11
Total births 1915	47	35	82	51	19	70	42	9	51	22	11	33	51
Total births 1914	43	37	80	53	14	67	26	6	32	16	7	23	56

TABLE 2.
TOTAL BIRTHS IN CITIES OF 2,000 POPULATION AND OVER,
ACCORDING TO THE 1910 FEDERAL CENSUS, BY COLOR,
FOR THE YEAR 1915, COMPARED WITH SIMILAR
FIGURES FOR 1914.

CITIES	1915			1914		
	White	Colored	Total	White	Colored	Total
Jacksonville -----	947	724	1671	1041	830	1871
Tampa -----	1164	220	1384	1146	236	1382
Pensacola -----	357	188	545	381	213	594
Key West -----	343	106	449	394	129	523
West Tampa -----	301	29	330	341	28	369
Gainesville -----	86	42	128	76	48	124
Miami -----	210	135	345	98	48	146
St. Augustine -----	74	32	106	65	14	79
Tallahassee -----	52	31	83	46	68	114
St. Petersburg -----	92	44	136	98	57	155
Lakeland -----	78	18	96	106	21	127
Ocala -----	52	29	81	47	31	78
Orlando -----	77	33	100	72	30	102
Sanford -----	34	68	102	39	61	100
Quincy -----	33	2	35	26	5	31
Palatka -----	51	40	91	5	23	28
Daytona -----	35	29	64	32	26	58
Fernandina -----	8	42	50	14	58	72
DeLand -----	45	12	57	43	10	53
Plant City -----	54	11	65	59	29	88
Fort Myers -----	56	12	68	49	6	55
Apalachicola -----	47	35	82	43	37	80
Bartow -----	51	19	70	53	14	67
Tarpon Springs -----	42	9	51	26	6	32
DeFuniak Springs ---	22	11	33	16	7	23
Kissimmee -----	51	3	54	56	18	74
Marianna -----	32	4	36	31	11	42

Live Oak and Lake City are not included in this tabulation although they had a population exceeding 2000, for the reason that Live Oak has made no reports for 1915, and Lake City only for the first three quarters.

TABLE 3.

TOTAL DEATHS IN CITIES OF 2,000 POPULATION AND OVER,
ACCORDING TO THE 1910 FEDERAL CENSUS, BY COLOR,
FOR 1915 COMPARED WITH SIMILAR
FIGURES FOR 1914.

CITIES	1915			1914		
	White	Colored	Total	White	Colored	Total
Jacksonville	530	824	1354	517	787	1304
Tampa	498	249	747	522	293	815
Pensacola	176	241	417	186	247	433
Key West	193	92	285	241	100	341
West Tampa	86	20	106	109	27	136
Gainesville	42	62	104	32	60	92
Miami	114	129	243	46	41	87
St. Augustine	61	46	107	49	43	92
Tallahassee	30	35	65	15	50	65
St. Petersburg	114	36	150	104	46	150
Lakeland	79	27	106	62	19	81
Ocala	34	75	109	25	42	67
Orlando	97	51	148	101	41	142
Sanford	21	14	35	15	20	35
Quincy	12	13	25	14	17	31
Palatka	37	44	81	31	36	67
Daytona	25	13	38	25	19	44
Fernandina	13	39	52	14	64	78
DeLand	24	18	42	22	13	35
Plant City	25	23	48	32	21	53
Fort Myers	34	20	54	12	4	16
Apalachicola	15	44	59	21	34	55
Bartow	15	5	20	17	8	25
Tarpon Springs	17	16	33	28	8	36
DeFuniak Springs	20	11	31	19	15	34
Kissimmee	17	6	23	11	4	15
Marianna	7	16	23	14	17	31

TABLE 4.

BIRTHS AND DEATHS BY COLOR AS REPORTED BY MUNICI-
PALITIES HAVING LESS THAN 2,000 POPULATION.
According to 1910 Federal Census.

CITIES	BIRTHS			DEATHS		
	White	Colored	Total	White	Colored	Total
Apopka 5	3	1	4	4	1	5
Auburndale	11	3	14	4	1	5
Avon Park	6	0	6	9	1	10
Bellevue 6	1	0	1	1	0	1
Bradentown 8	35	5	40	15	3	18
Branford 6	8	0	8	0	0	0
Bushnell 5	13	1	14	9	0	9
Callahan	9	1	10	9	2	11
Carrabelle 6	13	4	17	2	4	6
Caryville 4	4	0	4	4	4	8
Center Hill 5	9	5	14	6	0	6
Chipley 6	13	0	13	1	0	1
Citra	5	0	5	5	0	5
Clearwater 5	19	0	19	7	1	8
Coleman 5	4	4	8	6	2	8
Cottdale 5	4	1	5	1	1	2
Crescent City	11	4	15	9	4	13
Cypress	No reports			No reports		
Dade City 11	2	0	2	5	8	13
Dania 5	4	0	4	2	6	8
Daytona Beach 2	3	0	3	3	0	3
Delray 5	19	9	28	4	3	7
Dunedin	5	0	5	2	2	4
East Millville 6	19	1	20	16	3	19
Eatonville 4	0	1	1	0	1	1
Eau Gallie 3	3	0	3	2	1	3
Estero 5	0	0	0	1	0	1
Eustis	10	5	15	12	8	20
Fargo 6	1	2	3	0	0	0
Fellsmere 6	15	0	15	4	2	6
Florida City 5	13	1	14	0	0	0
Ft. Lauderdale	42	15	57	8	9	17
Ft. Meade	40	8	48	14	10	24
Ft. Pierce	24	12	36	17	12	29
Glendale 4	12	0	12	0	0	0
Greensboro 5	19	0	19	2	0	2
Gulfport	Recently passed ordinance.			No reports as yet received.		
Hosford 12	11	0	11	3	1	4
Interlachen 5	0	0	0	0	2	2
Jasper 4	18	3	21	5	3	8
Lake Butler	20	0	20	5	0	5
Lake Helen	7	13	20	5	3	8
Lake Worth	24	0	24	8	1	9
Largo 7	11	0	11	2	0	2
Laurel Hill 5	2	0	2	2	0	2
Lawtey	41	25	66	15	8	23
Leesburg 2	4	0	4	5	1	6
Lynn Haven	14	1	15	20	0	20
Maccleenny 4	1	0	1	0	0	0

TABLE 4. (Continued).

CITIES	BIRTHS			DEATHS		
	White	Colored	Total	White	Colored	Total
Manatee 2	4	3	7	4	4	8
Melbourn 10	6	2	8	1	0	1
Milton 7	23	0	23	9	5	14
Molino 4	9	1	10	3	2	5
Mt. Dora	8	6	14	15	4	19
Mulberry	Recently passed ordinance. No reports as yet received					
Newberry	7	2	9	0	3	3
Noma	19	0	19	1	0	1
Okeechobee 4	19	1	20	6	0	6
Orange Park	Recently passed ordinance. No reports as yet received					
Ormond 9	10	3	13	0	8	8
Pablo Beach	1	0	1	3	1	4
Palmetto	Recently passed ordinance. No reports as yet received					
Panama City	19	1	20	9	5	14
Pinellas Park 7	3	0	3	1	0	1
Pompano 4	2	1	3	0	0	0
Ponce de Leon 6	2	0	2	1	0	1
Port Tampa City	23	9	32	1	7	8
Punta Gorda 3	Recently passed ordinance. No reports as yet received					
Reddick 4	1	0	1	0	1	1
St. Andrews	28	3	31	8	1	9
St. Cloud	27	1	28	49	0	49
Sarasota	60	14	74	13	9	22
Sebring	8	3	11	4	1	5
Sopchoppy	Ordinance passed but no reports have been received					
South Jacksonville	35	2	37	28	16	44
Starke 10	25	2	27	11	6	17
Stuart	13	0	13	5	0	5
Taft 5	16	29	45	12	8	20
Tavares 7	3	3	6	5	1	6
Titusville 13	1	0	1	5	2	7
Umatilla 3	2	1	3	3	0	3
Wauchula 6	30	0	30	6	0	6
Wellborn 5	1	0	1	3	0	3
West Palm Beach	42	13	55	21	7	28
Williston	Ordinance passed but no reports have been received					
Winter Haven 3	17	0	17	5	0	5
Winter Park 0	3	1	4	1	0	1
Zephyrhills 4	3	0	3	7	0	7
Zolfo 5	4	3	7	4	1	5

Index figures indicate length of time reports have been received as follows:

- 0 December reports only.
- 1 November-December.
- 2 October-December.
- 3 September-December.
- 4 August-December.
- 5 July-December.
- 6 June-December.
- 7 May-December.
- 8 April-December.
- 9 March-December.
- 10 February-December.
- 11 January, February and March only.
- 12 July to October.
- 13 July to September.

TABLE 5.

PROPORTION OF DEATHS FROM PRINCIPAL CAUSES OR Groups of Causes Per 1000 Total Deaths, by Color, for the Registration Cities of Florida, and the Combined City (Jacksonville, Tampa, Pensacola and Key West) for the Year 1915, Compared with Similar Proportions of Deaths in the Registration Area of the United States for 1913.

Cause of Death	Registration Cities of Florida		Combined City (Jacksonville, Tampa, Pensacola, Key West)		Area of United States. Registration	
	Whi.	Col.	Whi.	Col.	Whi.	Col.
Typhoid	22.3	14.3	19.3	10.7	12.3	17.7
Malaria	5.6	13.4	3.6	8.5	1.3	7.4
Measles	3.9	0.0	6.5	0.0	9.4	5.3
Scarlet Fever	0.0	0.0	0.0	0.0	6.6	.2
Whooping Cough	3.4	2.3	5.0	2.1	6.9	10.1
Diphtheria and Croup	10.3	6.0	10.0	6.4	14.1	5.
Influenza	14.1	5.1	10.7	7.1	8.7	8.6
Pulmonary Tuberculosis	73.6	152.1	73.0	158.1	84.8	159.9
Other Forms Tuberculosis	6.8	6.0	7.9	6.4	13.7	19.2
Meningitis	9.8	3.7	10.7	1.4	7.4	7.9
Bronchitis	6.0	7.4	5.7	6.4	12.9	12.9
Pneumonia	54.8	51.1	55.9	58.3	93.6	99.9
Diarrhoea and Enteritis under 2 years	49.2	32.7	55.1	32.0	54.5	41.8
Violent, excluding Suicide	66.8	73.3	68.0	65.4	65.7	66.8
Suicide	15.8	2.8	19.3	2.8	11.9	3.9
Other Causes	657.6	629.8	649.3	634.4	596.2	533.4

STATUS OF TUBERCULOSIS DISTRICT NURSING FOR YEAR
ENDED DECEMBER 31, 1915.

Figures for Western and Southwestern Districts Cover a Period of
12 Months; those for the Central, North Central and West Cen-
tral, 6 Months; East Coast, 4 Months.

Residence of Cases Visited During 1915 by Towns and Districts	Number of Cases Visited during 1915	Cases Found to Have Died, 1915	Cases Removed during 1915	Cases Apparently Cured during 1915	Number Patients Under instruction Dec. 31, 1915	Number Patients fol- lowing Instructions
WESTERN DISTRICT	211	74	26	10	104	66
Alliance	1	1	--	--	--	--
Altha	1	--	--	--	1	--
Bagdad	1	--	--	--	1	1
Baker	1	--	--	--	1	1
Barth	1	--	--	--	1	1
Big Bayou	1	1	--	--	--	--
Blackman	3	--	--	--	3	3
Blountstown	6	--	1	--	5	5
Bluff Springs	3	1	--	--	2	2
Campbellton	1	1	--	--	--	--
Cantonment	2	1	--	--	1	1
Century	1	1	--	--	--	--
Chipley	7	--	1	1	5	2
Camp Walton	1	--	--	--	1	1
Clarksville	1	1	--	--	--	--
Cottage Hill	2	--	1	--	1	1
Cottondale	2	--	1	--	1	1
Dady	1	--	--	--	1	1
Delwood	1	--	--	--	1	--
Darlington	1	--	--	--	1	1
DeFuniak Springs	11	3	2	1	5	1
Escambia	1	--	--	--	1	1
Fountain	1	1	--	--	--	--
Graceville	2	1	1	--	--	--
Greenwood	2	1	--	--	1	1
Holt	5	--	--	--	5	3
Jay	5	1	2	--	2	--
Laurel Hill	3	1	--	--	2	1
Malone	5	1	--	--	4	1
Marianna	7	5	--	--	2	1
McDavid	5	--	--	--	5	5
McKinnonville	2	1	--	--	1	1
Millville	1	--	--	--	1	1
Milton	3	2	--	--	1	1
Molino	3	1	--	--	2	1
Mossey Head	2	1	--	--	1	1

STATUS OF TUBERCULOSIS DISTRICT NURSING FOR YEAR
ENDED DECEMBER 31, 1915.

Figures for Western and Southwestern Districts Cover a Period of
12 Months; those for the Central, North Central and West Cen-
tral, 6 Months; East Coast, 4 Months.

Residence of Cases Visited During 1915 by Towns and Districts	Number of Cases Visited during 1915	Cases Found to Have Died, 1915	Cases Removed during 1915	Cases Apparently Cured during 1915	Number Patients Under instruction Dec. 31, 1915	Number Patients fol- lowing Instructions
Munson	2	1	--	--	1	1
Muscogee	2	--	--	--	2	1
Noma	3	--	--	--	3	3
Oak Grove	4	1	--	--	3	1
Pace	1	--	--	--	1	1
Panama City	4	--	2	2	1	--
Paxton	2	--	--	1	1	1
Pensacola	67	34	13	4	18	11
Piney Woods	1	1	--	--	--	--
Pine Barren	1	--	--	--	1	1
Ponce de Leon	8	4	--	--	4	--
Roberts	1	--	--	--	1	1
Scotts Ferry	2	--	--	--	2	1
Sneads	4	--	2	1	1	--
Southport	1	--	--	--	1	1
St. Andrews	1	1	--	--	--	--
Vernon	1	1	--	--	--	--
Wasau	2	1	--	--	1	1
Westville	6	4	--	--	2	1
Wewahitchka	2	--	--	--	2	2
SOUTHWESTERN DIST.	212	42	20	4	148	113
Apopka	1	--	--	--	1	--
Arcadia	3	--	--	--	3	3
Bartow	3	--	--	--	3	3
Baum	1	--	--	--	1	--
Belair	1	--	--	--	1	1
Bowling Green	1	--	--	--	1	1
Bradentown	4	--	--	--	4	3
Brewster	1	--	--	--	1	1
Clearwater	5	3	--	1	2	2
Durant	1	--	--	--	1	1
Dunedin	1	--	--	--	1	1
Ft. Meade	4	--	--	--	4	3
Ft. Myers	2	--	--	--	2	2
Ft. Ogden	2	--	--	--	2	2

STATUS OF TUBERCULOSIS DISTRICT NURSING FOR YEAR
ENDED DECEMBER 31, 1915.

Figures for Western and Southwestern Districts Cover a Period of
12 Months; those for the Central, North Central and West Cen-
tral, 6 Months; East Coast, 4 Months.

Residence of Cases Visited During 1915 by Towns and Districts	Number of Cases Visited during 1915	Cases Found to Have Died, 1915	Cases Removed during 1915	Cases Apparently Cured during 1915	Number Patients Under instruction Dec. 31, 1915	Number Patients fol- lowing Instructions
Frost Proof -----	1	--	--	--	1	1
Geneva -----	2	--	--	--	2	2
Gulf City -----	1	--	--	--	1	1
Gulfport -----	3	1	--	1	1	1
Haines City -----	1	--	--	--	1	1
Kathleen -----	2	--	--	--	2	2
Kissimmee -----	1	1	--	--	--	--
Lakeland -----	41	10	1	--	30	20
Mulberry -----	4	--	2	--	2	2
Oakhurst -----	1	--	1	1	--	--
Orlando -----	5	1	--	--	4	2
Oviedo -----	1	--	--	--	1	1
Palmetto -----	1	1	--	--	--	--
Parish -----	1	1	--	--	--	--
Pierce -----	2	--	1	--	1	1
Plant City -----	11	2	1	--	8	3
Port Tampa -----	3	2	--	--	1	1
Punta Gorda -----	2	1	--	--	1	1
Safety Harbor -----	1	--	--	--	1	1
Sanford -----	4	--	--	--	4	4
Sarasota -----	4	--	1	--	3	2
Silver City -----	1	--	--	--	1	1
St. Cloud -----	1	--	--	--	1	1
St. Petersburg -----	8	1	1	--	6	6
Sutherland -----	1	--	--	--	1	1
Tampa -----	63	15	12	--	36	20
Tarpon Springs -----	9	1	--	1	7	5
Wall Springs -----	1	--	--	--	1	1
Waverly -----	1	1	--	--	--	--
Wauchula -----	2	--	--	--	2	2
Winter Park -----	1	--	--	--	1	1
Wimauma -----	2	1	--	--	1	1

STATUS OF TUBERCULOSIS DISTRICT NURSING FOR YEAR
ENDED DECEMBER 31, 1915.

Figures for Western and Southwestern Districts Cover a Period of
12 Months; those for the Central, North Central and West Cen-
tral, 6 Months; East Coast, 4 Months.

Residence of Cases Visited During 1915 by Towns and Districts	Number of Cases Visited during 1915	Cases Found to Have Died, 1915	Cases Removed during 1915	Cases Apparently Cured during 1915	Number Patients Under instruction Dec. 31, 1915	Number Patients fol- lowing Instructions
CENTRAL DISTRICT	173	37	33	9	92	79
Alachua -----	2	--	--	--	2	2
Archer -----	2	--	--	1	1	1
Bell -----	1	--	--	--	1	1
Bellevue -----	1	1	--	--	--	--
Boardman -----	1	--	1	--	--	--
Brooksville -----	7	2	--	--	--	3
Bronson -----	1	1	--	--	--	--
Bushnell -----	2	--	--	--	2	2
Campville -----	1	--	--	--	1	1
Cedar Keys -----	2	1	--	--	1	1
Citra -----	2	--	--	--	2	2
Clermont -----	1	--	1	--	--	--
Conant -----	1	--	--	--	1	1
Crystal Springs -----	1	--	1	--	--	--
Dade City -----	3	--	1	1	1	1
Dunnellon -----	5	3	1	1	--	--
East Lake -----	1	--	--	--	1	1
Electra -----	1	1	--	--	--	--
Eustis -----	10	3	1	1	5	5
Fairbanks -----	1	--	--	--	1	1
Fairfield -----	1	--	--	--	1	1
Floral City -----	1	--	1	--	--	--
Fruitland Park -----	2	--	--	--	2	--
Gainesville -----	16	4	3	2	7	7
Greer -----	1	--	--	--	1	1
Grove Park -----	4	1	--	--	3	3
Hague -----	1	--	--	--	1	1
Hawthorne -----	3	1	1	--	1	--
High Spring -----	1	1	--	--	--	--
Inverness -----	3	1	--	--	2	2
Island Grove -----	1	--	--	--	1	1
Kendrick -----	1	--	--	--	1	1
Lady Lake -----	3	--	--	--	3	3
Leesburg -----	5	--	1	--	4	2
Lowell -----	1	--	1	--	--	--

STATUS OF TUBERCULOSIS DISTRICT NURSING FOR YEAR
ENDED DECEMBER 31, 1915.

Figures for Western and Southwestern Districts Cover a Period of
12 Months; those for the Central, North Central and West Cen-
tral, 6 Months; East Coast, 4 Months.

Residence of Cases Visited During 1915 by Towns and Districts	Number of Cases Visited during 1915	Cases Found to Have Died, 1915	Cases Removed during 1915	Cases Apparently Cured during 1915	Number Patients Under instruction Dec. 31, 1915	Number Patients fol- lowing Instructions
Loyce	1				1	1
Lukens	1				1	1
Martin	1				1	1
Micanopy	2	1			1	1
Melrose	1	1				
Meredith	1				1	1
Montbrook	1	1				
Morrison	1	1				
Newberry	2				2	2
Ocala	14	6			8	4
Oklawaha	2	2				
Orange Heights	1		1			
Otter Creek	5				3	3
Oxford	10		4	1	5	4
Reddick	6		2		4	4
Rochelle	1	1				
San Antonio	2	1			1	1
Socastee	3	1			2	2
Sparr	1	1				
Summerfield	1		1			
Sumner	1		1			
Tavares	4	1			3	3
Trenton	1				1	1
Trilby	6		6			
Waldo	3			1	2	2
Weirsdale	2				2	
Wildwood	1		1			
Williston	6		4	1	1	1
Zephyrhills	2				2	2
NORTH CENTRAL DIST.	191	11	3	1	176	70
Bakers Mill	1				1	
Paldwin	5	1			4	3
Branford	5				5	
Bavard	2				2	
Callahan	4				4	3

STATUS OF TUBERCULOSIS DISTRICT NURSING FOR YEAR
ENDED DECEMBER 31, 1915.—(Continued.)

Figures for Western and Southwestern Districts Cover a Period of
12 Months; those for the Central, North Central and West Cen-
tral, 6 Months; East Coast, 4 Months.

Residence of Cases Visited During 1915 by Towns and Districts	Number of Cases Visited during 1915	Cases Found to Have Died, 1915	Cases Removed during 1915	Cases Apparently Cured during 1915	Number Patients Under instruction Dec. 31, 1915	Number Patients fol- lowing Instructions
Crescent City	6				6	4
Crawford	1				1	
Dowling Park	2		1		1	
Falmouth	4				4	
Fernandina	2				2	1
Ft. White	1				1	
Geneva	4				4	
Green Cove Springs	2				2	2
Gilmore	1				1	
Grandin	1				1	
Hampton	3				3	2
Hillyards	1				1	
Jacksonville (out)	15	2			13	9
Jasper	9				9	
Jennings	1				1	
Lake Butler	3				3	2
Lake City	9	2			7	4
Lake Geneva	4				4	
Lawtey	4	2	1		1	1
Live Oak	8				8	2
Lulu	3				3	
Macedenny	5				5	5
Mayport	3	1			2	
Melrose (out)	3				3	
Mandarin	1				1	
Maxwell	1				1	
O'Brien	2				2	
Ortega	1				1	
Padlock	1				1	
Palatka	15	2			13	5
Putnam Hall	1				1	
Sanderson	1				1	1
South Jacksonville	4				4	3
San Mateo	1				1	
Starke	13				13	8
Tisonia	1				1	

STATUS OF TUBERCULOSIS DISTRICT NURSING FOR YEAR
ENDED DECEMBER 31, 1915.—(Continued)

Figures for Western and Southwestern Districts Cover a Period of
12 Months; those for the Central, North Central and West Cen-
tral, 6 Months; East Coast, 4 Months.

Residence of Cases Visited During 1915 by Towns and Districts	Number of Cases Visited during 1915	Cases Found to Have Died, 1915	Cases Removed during 1915	Cases Apparently Cured during 1915	Number Patients Under instruction Dec. 31, 1915	Number Patients fol- lowing Instructions
Watertown -----	3	1	--	1	1	1
Welaka -----	3	--	--	--	3	3
Wellborn -----	23	--	1	--	22	10
West Lake -----	2	--	--	--	2	--
White Springs -----	1	--	--	--	1	--
Yulee -----	5	--	--	--	5	--
WEST CENTRAL DIST.	162	31	6	6	119	70
Alton -----	2	--	--	--	2	--
Ashmore -----	1	--	--	--	1	--
Apalachicola -----	10	2	--	1	7	5
Aucilla -----	4	1	--	--	3	2
Carbur -----	3	--	3	--	--	--
Carrabelle -----	3	1	--	--	2	1
Chaires -----	1	--	--	--	1	--
Chattahoochee -----	4	1	--	--	3	2
Cherry Lake -----	1	--	--	--	1	1
Concord -----	4	--	--	1	3	2
Crawfordville -----	1	--	--	--	1	1
Day -----	1	1	--	--	--	--
Drifton -----	1	--	--	--	1	--
Greensboro -----	2	--	--	--	2	2
Greenville -----	8	--	--	1	7	5
Gretna -----	2	--	--	--	2	2
Hanson -----	2	--	--	--	2	1
Havana -----	5	--	--	--	5	2
Hinson -----	1	--	1	--	--	--
Hosford -----	1	--	--	--	1	1
Lamont -----	1	--	--	--	1	1
Lee -----	5	2	--	--	3	2
Lloyds -----	2	--	1	--	1	--
Madison -----	12	4	--	--	8	5
Mayo -----	1	1	--	--	--	--
Monticello -----	9	3	--	--	6	4
Perry -----	10	2	1	--	7	5
Pinetta -----	4	--	--	--	4	3
Quincy -----	20	4	--	--	16	8

STATUS OF TUBERCULOSIS DISTRICT NURSING FOR YEAR
ENDED DECEMBER 31, 1915.—(Continued.)

Figures for Western and Southwestern Districts Cover a Period of
12 Months; those for the Central, North Central and West Cen-
tral, 6 Months; East Coast, 4 Months.

Residence of Cases Visited During 1915 by Towns and Districts	Number of Cases Visited during 1915	Cases Found to Have Died, 1915	Cases Removed during 1915	Cases Apparently Cured during 1915	Number Patients Under instruction Dec. 31, 1915	Number Patients fol- lowing Instructions
River Junction -----	3	2	--	--	1	--
Sopchoppy -----	6	--	--	--	6	5
Sumatra -----	1	--	--	--	1	1
Tallahassee -----	21	6	--	3	12	7
Wacissa -----	1	--	--	--	1	--
Waukeenah -----	6	1	--	--	5	1
Woodville -----	3	--	--	--	3	1
EAST COAST DISTRICT	276	23	13	1	240	233
Arch Creek -----	1	1	--	--	--	--
Assembly Beach -----	2	--	1	--	1	--
Aurentia -----	2	--	1	--	1	1
Barberville -----	2	1	--	--	1	1
Beuna Vesta -----	2	--	--	--	2	2
Boynton -----	4	--	--	--	4	4
Bunnell -----	4	--	--	--	4	4
Camp Casodoga -----	2	--	--	--	2	2
Canaveral -----	1	--	--	--	1	1
Cookesberry -----	1	--	1	--	--	--
Dania -----	5	--	--	--	5	5
Daytona -----	9	--	--	--	9	9
Daytona Beach -----	5	--	--	--	5	5
Deerfield -----	2	--	--	--	2	2
DeLand -----	8	1	--	--	7	7
DeLeon Springs -----	7	--	--	--	7	7
Delray -----	5	--	--	--	5	5
Durbin -----	1	--	--	--	1	1
Elkton -----	7	--	--	--	7	7
Emporia -----	7	--	--	--	7	7
Enterprise -----	1	1	--	--	--	--
Fellsmere -----	4	--	--	--	4	--
Florida City -----	1	--	--	--	1	1
Ft. Lauderdale -----	14	1	--	--	13	13
Ft. Pierce -----	10	3	--	--	7	7
Fulford -----	1	--	1	--	--	--
Gifford -----	1	--	--	--	1	1
Glencoe -----	2	--	--	--	2	2

STATUS OF TUBERCULOSIS DISTRICT NURSING FOR YEAR
ENDED DECEMBER 31, 1915.—(Continued.)

Figures for Western and Southwestern Districts Cover a Period of
12 Months; those for the Central, North Central and West Cen-
tral, 6 Months; East Coast, 4 Months.

Residence of Cases Visited During 1915 by Towns and Districts	Number of Cases Visited during 1915	Cases Found to Have Died, 1915	Cases Removed during 1915	Cases Apparently Cured during 1915	Number Patients Under instruction Dec. 31, 1915	Number Patients fol- lowing Instructions
Glenwood	1	--	--	--	1	1
Hallandale	1	--	--	--	1	1
Hastings	6	--	--	--	6	6
Hawks Park	1	--	1	--	--	--
Hopkins	4	--	--	--	4	4
Holly Hill	1	--	--	--	1	1
Hurds	1	--	--	--	1	1
Hypoluxo	2	--	--	--	2	2
Indian River City	1	--	--	--	1	1
Jensen	1	--	--	--	1	1
Key West	44	7	3	1	33	33
Kingston	1	--	--	--	1	1
Korona	1	--	--	--	1	1
Lantana	1	1	--	--	--	--
Lake Helen	3	--	--	--	3	3
Lake Worth	6	--	--	--	6	6
Larkin	3	--	--	--	3	3
Lyrota	1	--	--	--	1	1
Malabar	2	--	--	--	2	2
Melbourne	2	--	--	--	2	2
Miami	19	2	--	--	17	17
Micco	1	--	--	--	1	1
Mims	1	--	--	--	1	1
Moultrie	2	--	--	--	2	2
New Augustine	5	2	--	--	3	3
New Smyrna	5	--	1	--	4	4
Oak Hill	3	--	1	--	2	2
Okeechobee	1	--	--	--	1	1
Orange City	3	--	--	--	3	3
Osteen	5	--	1	--	5	4
Perrine	1	--	--	--	1	1
Pierson	2	--	--	--	2	2
Pompano	3	2	--	--	1	--
Port Orange	2	--	--	--	2	2
Princeton	2	--	--	--	2	2
Quay	4	--	--	--	4	4
Seville	2	--	--	--	2	2

STATUS OF TUBERCULOSIS DISTRICT NURSING FOR YEAR
ENDED DECEMBER 31, 1915.—(Continued)

Figures for Western and Southwestern Districts Cover a Period of
12 Months; those for the Central, North Central and West Cen-
tral, 6 Months; East Coast, 4 Months.

Residence of Cases Visited During 1915 by Towns and Districts	Number of Cases Visited during 1915	Cases Found to Have Died, 1915	Cases Removed during 1915	Cases Apparently Cured during 1915	Number Patients Under instruction Dec. 31, 1915	Number Patients fol- lowing Instructions
Stuart	1	--	--	--	1	1
Titusville	5	--	--	--	5	5
Tocoi	1	--	1	--	--	--
Twin Oaks	1	--	--	--	1	1
Valkaria	1	--	--	--	1	1
Vero	1	--	--	--	1	1
Wabasso	2	--	--	--	2	2
West Palm Beach	9	1	1	--	7	7

Number cases of tuberculosis visited by nurses during 1915-- 1,225

Number cases found to have died during 1915-- 218

Number cases removed and not again found, during 1915-- 101*

Number cases apparently recovered from tuberculosis in 1915 31

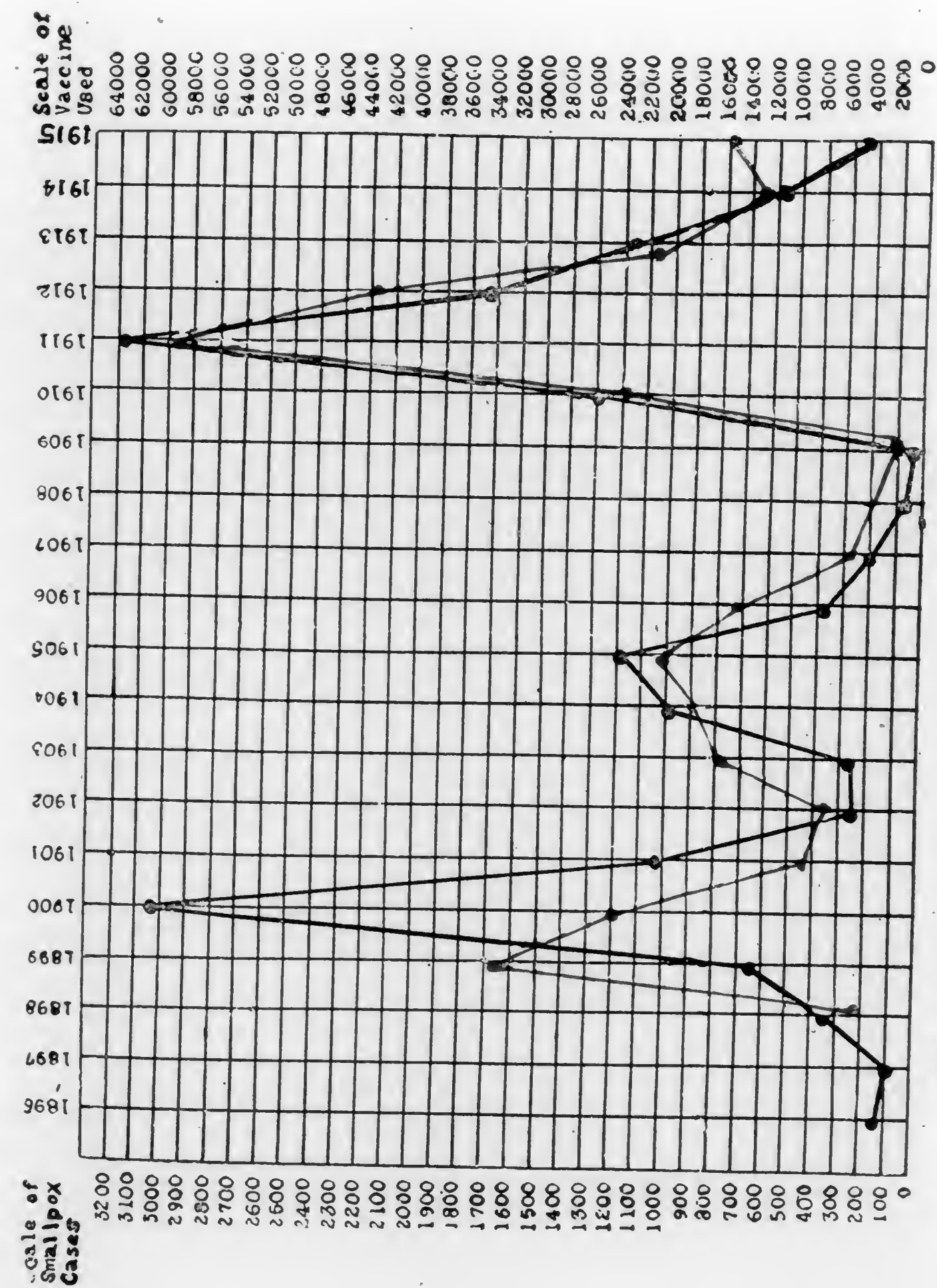
Number cases under instruction by nurses, Dec. 31, 1915-- 879

Number cases known to be following instructions, Dec. 31, 1915 631

* Includes 3 cases locating in other districts and again found.

REPORTED CASES OF SMALLPOX IN FLORIDA IN 1915.

	January	February	March	April	May	June	July	August	September	October	November	December	Total	
													Towns	Counties
ALACHUA													1	1
Gainesville							1						1	
BAKER													2	3
Macclenny				2									2	
Olustee												1	1	
BRADFORD													1	1
Starke	1												1	
BREVARD													2	2
Titusville												2	2	
CALHOUN													1	4
Aucilla	1												1	
Blountstown	3												3	
DUVAL														46
Jacksonville & vicinity	6	5	10	10	4	1	3				1	1	41	
Baldwin			4										4	
St. Nicholas				1									1	
ESCAMBIA													2	2
Pensacola				2									2	
FRANKLIN													1	2
Apalachicola				1									1	
GADSDEN													1	1
Quincy		1											1	
HAMILTON													3	3
Jasper	3												3	
HILLSBOROUGH														57
Tampa & Vicinity	2	3	35	11	3	1	1						56	
Port Tampa									1				1	
HOLMES													2	2
Westville					1	1							2	
JACKSON													1	3
Cypress	1												1	
Marianna	1	1											2	
LAKE														21
Tavares		1											1	
Leesburg			3	1									4	
Altoona & Paisley				3									3	
Umatilla				13									13	
LEON														5
Tallahassee	2	2	1										5	
MANATEE													1	1
Palmetto	1												1	
MARION														13
Dunnellon	4	2	5										11	
Ocala	2												2	
MONROE														3
Key West			1										1	
Big Coppitt					2								2	
NASSAU														11
Hilliard			9										9	
Callahan									2				2	



PREVALENCE OF SMALLPOX IN FLORIDA, 1896 to 1915.
 Black lines represent number of cases reported, by years.
 Red lines represent number of vaccinations done, by years.

REPORTED CASES OF SMALLPOX IN FLORIDA IN 1915.
(Continued.)

	January	February	March	April	May	June	July	August	September	October	November	December	Total	
													Towns	Counties
ORANGE														12
Apopka					1	1							2	
Orlando					2	2	6						10	
OSCEOLA														1
St. Cloud			1										1	
PINELLAS														3
St. Petersburg	1		1										2	
Dunedin												1	1	
POLK														2
Lake Alfred				1									1	
Pierce					1								1	
PUTNAM														1
Palatka			1										1	
St. JOHN														2
New Augustine				2									2	
ST. LUCIE														1
Fort Pierce				1									1	
SEMINOLE														5
Sanford				5									5	
VOLUSIA														24
Daytona			1		6								7	
Daytona Beach				1									1	
DeLand					2							14	16	
WALTON														1
Port Washington											1		1	
WASHINGTON														4
Vernon	1												1	
Chipley		1											1	
Caryville					2								2	
	29	16	37	78	32	8	11	1	3	1	1	19	236	236

BIOLOGICAL PRODUCTS.

Distribution of Biological Products during 1915 (anti-rabic vaccine, anti-typhoid vaccine, diphtheria and tetanus antitoxin free to indigent only).

NUMBER OF PERSONS RECEIVING TREATMENT.

County and Town	Anti-Smallpox Vaccine	Anti-Rabic Vaccine	Anti-Typhoid Vaccine	Diphtheria Antitoxin Curative and Immunizing	Tetanus Antitoxin Immunizing
ALACHUA					
Gainesville	635	1		1	
High Springs	40	2			
Newberry	50	6			
Waldo	10				
Alachua		1	5		
Archer		1			
BAKER					
Macclenny	130				
Olustee	30				
BAY					
Panama City				3	
Belleisle				9	
Bay Harbor		1			
BRADFORD					
Raiford	40				
Starke	80				
Lawtey	120				
Lake Butler	10				
BREVARD					
Melbourne	10				
Titusville	30				
CALHOUN					
Blountstown				2	
CITRUS					
Crystal River			6		
Inverness			4		
CLAY					
Green Cove Springs			12	1	
COLUMBIA					
Lake City	50	1			
Fort White		1	3		
DADE					
Miami	50				
Perrine	80				
DE SOTO					
Arcadia		8			
Nocatee		1			
Wa chula			8		
DUVAL					
Jacksonville	1242	7	36	123	8
South Jacksonville	90			4	
Baldwin	60				

BIOLOGICAL PRODUCTS—(Continued).

Distribution of Biological Products during 1915 (anti-rabic vaccine, anti-typhoid vaccine, diphtheria and tetanus antitoxin free to indigent only).

NUMBER OF PERSONS RECEIVING TREATMENT.

County and Town	Anti-Smallpox Vaccine	Anti-Rabic Vaccine	Anti-Typhoid Vaccine	Diphtheria Antitoxin Curative and Immunizing	Tetanus Antitoxin Immunizing
Mandarin	10				
Milldale			9		
ESCAMBIA					
Pensacola	180		2	1	1
FRANKLIN					
Apalachicola	20				
GADSDEN					
Chattahoochee	250			2	
Quincy	20		21		
Havana	10				
Greensboro				1	
River Junction			9		
HAMILTON					
Jennings	20				
Jasper	80			1	
HILLSBOROUGH					
Tampa	6550	9	7	30	
Plant City			11	20	
West Tampa				2	
Knights				1	
Seffner				1	
Thonotosassa				1	
HOLMES					
Westville	10				
Bonifay			6	1	
JACKSON					
Greenwood		3			
Campbellton				1	
Marianna	20				
JEFFERSON					
Monticello	370		5	5	
Wacissa	30				
Aucilla	20	1			
Lloyd		1			
LAFAYETTE					
Mayo	10				
Alton			7		
LAKE					
Tavares	10				
Eustis	25				
Leesburg	20			2	
Umatilla	110				

BIOLOGICAL PRODUCTS—(Continued).

Distribution of Biological Products during 1915 (anti-rabic vaccine, anti-typhoid vaccine, diphtheria and tetanus antitoxin free to indigent only).

NUMBER OF PERSONS RECEIVING TREATMENT.

County and Town	Anti-Smallpox Vaccine	Anti-Rabic Vaccine	Anti-Typhoid Vaccine	Diphtheria Antitoxin Curative and Immunizing	Tetanus Antitoxin Immunizing
LEON					
Tallahassee	340	2		2	
LEVY					
Williston	50	1	6	2	
Sumner	80				
MADISON					
Madison	60				
Greenville		6		3	
MANATEE					
Palmetto	20				
Sarasota				2	
MARION					
Ocala	60		3		
Dunnellon	490				
McIntosh		1			
MONROE					
Key West	240		2	4	
NASSAU					
Fernandina	330	1			
Hilliard	60				
Callahan	10				
ORANGE					
Orlando	140			4	
Winter Garden	50			2	
Apopka	20				
OSCEOLA					
St. Cloud	20				
PALM BEACH					
West Palm Beach	40				
Lake Worth	30				
PINELLAS					
St. Petersburg	10				
Safety Harbor	50				
Largo	10				
POLK					
Fort Meade	10			10	
Lakeland	12			9	
Mulberry	75			1	
Bartow	10			16	
Winter Haven	10				
Homeland				1	

BIOLOGICAL PRODUCTS—(Continued).

Distribution of Biological Products during 1915 (anti-rabic vaccine, anti-typhoid vaccine, diphtheria and tetanus antitoxin free to indigent only).

NUMBER OF PERSONS RECEIVING TREATMENT.

County and Town	Anti-Smallpox Vaccine	Anti-Rabic Vaccine	Anti-Typhoid Vaccine	Diphtheria Antitoxin Curative and Immunizing	Tetanus Antitoxin Immunizing
PUTNAM					
Palatka				1	
Interlachen	20				
ST. JOHN					
St. Augustine	1730				
Hastings	30				
Bunnell	10				
ST. LUCIE					
Fort Pierce	430				
Sebastian	80				
Okeechobee	70				
Walton				3	
SANTA ROSA					
Bagdad	20				
SEMINOLE					
Sanford	72		11	1	
Chuluota	60				
SUWANNEE					
Live Oak	200		18		
Dowling Park					1
TAYLOR					
Perry		1			
Carbur			25		
VOLUSIA					
Daytona	160		2	5	
DeLand	60				
New Smyrna	60				
Port Orange	10				
Beresford	20				
WAKULLA					
Sopchoppy	10				
WALTON					
DeFuniak Springs	20	1	24	18	
Dixon	20				
WASHINGTON					
Chipley	20				
TOTALS	15861	57	242	296	10

REPORTS OF

DR. CHAS. WM. BARTLETT,

DR. C. W. D'ALEMBERTE,

DR. J. Y. PORTER, JR.,

DR. C. T. YOUNG,

DR. C. H. DOBBS,

DR. W. P. CRIGLER,

DR. J. E. TAYLOR,

DR. M. E. HECK,

DR. W. A. CLAXTON, (Bacteriologist)

DR. R. C. TURCK,

Assistants to the State Health Officer

DR. JAS. M. JACKSON,

DR. D. G. HUMPHREYS,

DR. H. A. JOHNSON,

Agents of the State Board of Health.

REPORT OF DR. CHARLES W. BARTLETT

Southwestern District

Tampa, Fla., January 1, 1916.

Dr. Joseph Y. Porter,

State Health Officer, Jacksonville, Fla.

Dear Doctor:—The health condition in the district of South Florida comprising the counties of Hillsborough, Pinellas, Manatee, Polk, DeSoto and Lee has been, as in the past year, good.

General Health,
Conditions in
Tampa district

The main infectious and contagious diseases that we have had to deal with have been diphtheria, typhoid fever, scarlet fever in Hillsborough, and smallpox. In all sections visited we have found a few cases of pellagra, blanks being furnished to the physicians with the request that a detailed report should be filled out and forwarded to the office at Jacksonville. On several occasions it was found, on a second interview, that no report had been made; and it seems that several of the doctors take absolutely no interest in reporting their cases, while others very cheerfully have given a complete report. Trachoma, among the schoolchildren, was also found in Manatee County during the early part of the year.

Communicable
Diseases.Pellagra
cases found.Doctors not
showing inter-
est in making
reports.

Under the Nuisance Act, a considerable number of complaints have been received at this office, and investigation has been made at the request of private citizens and civic authorities of incorporated and unincorporated towns. Cesspools, open closets, sewage, garbage, fruit dumping from packing houses, putrid animal matter and stagnant water, have been made the subjects of complaints, which nuisances have all been abated with the single exception of a large amount of dead fish that appeared on the Bayshore Boulevard during the month of August, over which the Board had no jurisdiction.

Nuisances.

Conferences have also been held with city councils, and civic clubs on matters pertaining to sanitation.

We have often been called by citizens of non-incorporated towns for advice as to the means and ways of handling their garbage collection and their sanitary department.

The location of the State Isolation Hospital in Hills-

Hillsborough
County
Isolation
Hospital.

borough County has been the cause of complaint by the citizens of a new suburban district in Tampa, called "Seminole Heights." This matter was brought to the attention of the Board of Trade, the County Commissioners, and the Grand Jury, and a request for our appearance before them with demonstration of records of smallpox and leprosy. We also had to appear before the County Commissioners on this account, and up to the present time there has been no decision made by the County Commissioners on the proposition made to them in case it was decided to change the hospital's location.

Sanitary
Surveys.

We have also been requested to make sanitary surveys of Safety Harbor and Tarpon Springs, which surveys comprise several reports made, and sent to the Central Office at Jacksonville.

Distribution
of literature
etc.

On the educational line not only have we attended to the distribution of pamphlets published by the State Board of Health, but also have answered all letters pertaining to pellagra, hookworm, and treatment and prevention of same; also explanations as to the handling of diphtheria, and tuberculosis, and, whenever the inquirer's residence has been close to the city, we have written them as to the advisability of obtaining treatment from the nearest reputable physician.

We have also been requested to give talks to the Y. M. C. A., at their encampment at Deer Lake, to the Negro anti-tuberculosis society and to school children at the request of teachers.

In the routine office work, we have followed the same policy of previous years of investigating every case of typhoid fever, diphtheria, scarlet fever, and measles that has been reported as positive by the laboratory or by the physician treating the case. We also have informed the teachers of all cases of infectious diseases among the pupils attending the respective schools.

Reporting of
communicable
diseases by
physicians.

It has been our continuous aim and policy to find out the physicians failing to report infectious and contagious diseases, and, when negligence in this matter has been discovered, we have made efforts by persuasion to get them to report such cases; and we believe that we have succeeded in this matter by keeping a very accurate record of all cases of contagious diseases, especially in Tam-

pa and surrounding territory, where we are in closer contact with the general practitioner.

We have kept the records of all contagious and infectious diseases accessible not only to the City Health Department, but to all the practitioners of his locality.

This office has also attended to treating several cases of hydrophobia among the indigent, as well as indigent cases of diphtheria; and all cases of smallpox cared for in the Isolation Hospital as well as those isolated in their own premises have been treated.

Smallpox.

This about covers the general work done by this office during the year 1915, the details of which have been forwarded in special reports to the Jacksonville office from time to time. Dates and location can be seen in the monthly itinerary report forwarded to the Jacksonville office at the end of every month.

The description of the particular work by Counties is as follows:

During the year 1915 we have had only 54 cases of smallpox in Hillsborough County against 65 cases the previous year. The first case started on the 21st of January, it being the only case during that month. The other cases developed as follows: February 2nd, March 12th, April 21st, May 11th, June 5th, July 1st, August 1st. Although we had less cases this year, it was different from last year in that there were more cases among the white population than among the colored, the proportion being 33 white cases to 21 black. This was due to an unreported case which appeared in Tampa Heights and which was not discovered until the second or third case had developed among the family causing also the spread among the friends, relatives, and neighbors; but, as the saying goes, "it is an ill wind that blows nobody good", such was the condition here for preventive medicine. The cases being among the white population, the people became alarmed to such an extent that we have had a banner year in vaccination. For weeks and weeks in succession, our office was crowded with applicants for vaccinations; to such an extent that we applied during the year for 3442 vaccine points for the use of this office alone. The physicians of Tampa applied for and obtained 1129 vaccine points for their private patients; so it can be seen that in Tampa alone there were

Hillsborough
County.

4571 vaccinations made, which I think is a fine showing for a community which has shown quite an indifference to this preventive measure for a number of years. It may also be well to state here, for the benefit of those that howl against sore arms and amputations resulting from vaccination, that out of the 3442 vaccinations done by me, there were only two sore arms; and, if taken into consideration that one of the cases was that of a boy who lived in a room 16 x 16 which room acted as a grocery store in the day time and as bedroom, chicken coop, etc., in the night time, and was in a very filthy condition, it is not to be wondered at, that the wound became infected. Even this very sore arm, however, was abated with anti-septic treatment in about three days without leaving the boy any worse off for his experience. The other case was due to scratching, and became normal within a period of twenty-four hours. It is to be doubted, whether 3442 scratches could be made in such a number of people by any other means, in which the result could be compared to this. I do not believe that right here in the city of Tampa such a number of scratches could be made without the development of some serious condition, such as lock-jaw, septicaemia, etc.

Another good result we obtained from the lack of report in that first case, was the demonstration to the people that it is useless to hide those cases as by successive crops among their families and friends, it is bound to be discovered; and that isolation is next to vaccination, the best of preventive measures.

Diphtheria.

Diphtheria has prevailed to a considerable extent throughout the year. The fact is, that it has been endemic. The least we have had was during the month of June in which only two cases were reported. Of course, as in previous years, diphtheria has prevailed a great deal more during the cold months and during the school part of the year. During the latter part of the year we had quite a little epidemic in the northern part of the County, in a settlement named "Lake Magdalene", where eight cases developed. Very fortunately, none of the cases were of the malignant type. We recommended isolation and no discontinuance of school, but the School Commissioner of that district thought it would be safer to close that school.

In connection with this trouble in Lake Magdalene, we find that the arrangement made by the State Board of Health with the National Vaccine and Anti-toxin Institute, Washington, D. C., is an excellent one, as that proportion of diphtheria cases occurred among the laboring class and it would have been a hardship for them to pay for the anti-toxin used as heretofore. The present price is such a saving to them that a very favorable comment has been made by everyone who has been in need of the treatment.

The number of cases of diphtheria reported for this year, for Tampa and West Tampa, was less than last year, the total being 125 against 167 cases for the previous year. The highest number occurred in November, in which month there were 24 cases, against December of last year, in which there were 40 cases. The death rate was also lower than the previous year, only five deaths occurring from diphtheria against nine the previous year.

The number of scarlet fever cases for 1915 was 17, six cases more than in the previous year. Very fortunately, not a single death resulted from this disease. The prevalence of cases by months has been as follows: February 1; March 1; May 1; August 4; September 6; October 1; November 2; December 1;. All cases of scarlet fever have been isolated and kept from school for a period of from six to eight weeks.

Scarlet
Fever.

I have, before, in other reports, called attention to the fact that although we have scarlet fever here every year, it has never become epidemic since the year 1898.

There has been a great reduction in the number of cases of typhoid fever since our last annual report. We have had 114 cases reported for West Tampa and Tampa, against 185 cases reported last year. The largest number of cases reported this year was during the month of February, 20 cases, against 40 cases reported last year during January which was the largest number reported for 1914. We have had typhoid cases reported every month both last and this year. The lowest number during 1915 was in the month of April only six cases.

Typhoid
Fever.

Careful investigation has been made into each case reported, and we find that 72 live in unscreened houses, 7 in partially screened houses, and 35 in screened ones, mak-

ing a total of 79 not protected from flies by screening. In 40 cases there were open closets on the premises, while 56 were connected with the sewerage system. 18 houses had cesspools.

On premises that were screened and connected with sewerage, we found upon investigation, that there were 51 having open closets close to the premises. There were 5 cases in which the infection could be traced to the same house.

Infection by water supply can be traced to none of the cases, as 84 patients were supplied by city water, 5 from well water, 24 from pumps, and 1 from spring water. Milk cannot be attributed as cause of infection, as upon investigation it was found that most of the patients took milk from different sources. Only one case was found where no milk was consumed. Out of the 114 cases investigated, only seven took raw oysters. Another fact in connection with the screened houses, is that out of the 35 cases living in screened places, 12 had some milk at restaurants or other places outside of their premises.

I called attention last year, to the fact that West Tampa had established a soda fountain where a supply of raw milk is sold, just as in other fountains, but there has been absolutely no increase in the typhoid rate at West Tampa; on the contrary, there have been only 10 cases reported during the year, against 13 cases last year, and the only explanation left now regarding this matter is the observation made before, that is, the consumption of raw vegetables is a great deal less in West Tampa in proportion to population than in Tampa proper.

Very few cases of pellagra have been reported directly to this office, as a request has been made in every case to fill out the blanks furnished for this disease, and to forward them to the State Health Officer at Jacksonville; but, upon looking up the record of deaths for the year 1915, we find that pellagra shows the largest number of deaths reported next to tuberculosis; no less than 9 cases. Personally, I only knew of three cases within the county of Hillsborough.

Malaria has prevailed to a certain extent throughout the county, but this is gradually diminishing from year to year, as we had only 42 cases reported for Hillsborough

Pellagra.

Malaria.

County during 1915. Of course, I believe that a good many cases remain unreported, but, if we take the record of the laboratory for the number of suspected cases submitted, we may claim that the index for cases in Tampa, West Tampa, and vicinity where nearly all cases of fever are submitted for examination, is a good index for the condition in the balance of the county.

The health condition of Polk County has been most excellent throughout the year 1915. Although 8 cases of diphtheria have been reported from this county during the whole year, there was not an epidemic at any time. Next to diphtheria, typhoid fever was the infectious disease which was most prevalent, 10 cases being reported throughout the year. Malaria has prevailed to some extent and also tuberculosis. Several cases of pellagra were found during our trip of inspection through this county, some cases were reported directly to the main office at Jacksonville by the physicians. No smallpox was reported from this county.

Polk County.

The health condition of Pinellas County was very good throughout the year. Only one case of diphtheria was reported and eight cases of typhoid fever during the year. One smallpox case was reported from this county. A sanitary survey of Safety Harbor and Tarpon Springs was requested by the State Health Officer, which was immediately made and of which a full and illustrated report was sent to the State Health Officer and also to the civil authorities of both localities.

Pinellas County.

The physicians of this small county seem to take considerable interest in tuberculosis, as more cases are reported from Pinellas County, than any of the other counties with the exception of Hillsborough, there being no less than 12 cases reported during the year.

Diphtheria, typhoid fever, and tuberculosis were reported from this county during the year 1915, in small amounts, there being 5 diphtheria cases, 4 typhoid fever and 3 tuberculosis for the year. No smallpox reported from this county.

Manatee County.

During the latter part of last winter, during the month of March, an epidemic of trachoma was reported from Sarasota. An investigation was requested by the State Health Officer, which was immediately made, with

Trachoma.

the result that the diagnosis of trachoma by the local physicians was confirmed. In connection with this trachoma situation, there was a controversy between the physicians of the locality as to whether the disease was or was not trachoma. Although we were quite positive that the number of trachoma cases was considerable, some of the local physicians appealed from our diagnosis, basing their appeal on the fact that we were not eye specialists, and requested further investigation by the federal government, which request was granted by the State Health Officer; and Surgeon James A. Nydeggar of the U. S. Public Health Service was detailed for this purpose. He made a most complete and searching investigation of the trachoma condition among the school children throughout Manatee County, and our diagnosis of trachoma was confirmed, as found in the report given in Supplement No. 25 to the Public Health Reports of July 30, 1915, which says as follows:

"The visit of the writer to Sarasota was made, at the request of the State Health Officer, to determine the nature of the affection existing among the school children. According to instructions, he stopped at Jacksonville for a conference with the State Health Officer, and from there he went to Tampa and met the district health officer, Dr. C. W. Bartlett, who on a previous visit had pronounced on the nature of the trouble, and who accompanied the writer to Sarasota, which was reached on the night of March 10th. On the following forenoon the eyes of a considerable number of children who had been debarred from the schools since the date of detection of the disease were examined.

"As a result of the inspection of these selected cases, the writer was able to confirm the diagnosis of the representative of the State Board of Health, and also of some of the local physicians, that trachoma existed among the school children, but to what extent the disease was present was not known at that time.

Subsequently, at the request of the mayor, the writer met in conference the members of the town council, and conferred with them in regard to the best methods of procedure to be adopted to rid the school children of this dangerous contagious disease."

De Soto
County.

The health condition of DeSoto County was very good with the exception of an outbreak of typhoid fever at Fort Ogden and also at Avon Park. Both places were visited, investigation of the typhoid situation was made, and a report of same sent to the State Health Officer at the

time. 13 cases of typhoid were reported from this county throughout the year, a case of diphtheria, and five cases of tuberculosis.

The health condition in Lee County has been excellent during the year 1915. The only information that we could obtain was of two cases of typhoid fever. Absolutely no smallpox was reported from Lee County, nor any other infectious diseases. We received a complaint from this county concerning a dumping ground nuisance at Boca Grande, which was abated by making a trip of inspection to Boca Grande and by selecting a place for dumping grounds for this county.

Lee County.

I also wish to submit the work done in Hillsborough County in regard to fumigations, inspections, etc., during the year 1915, for this district:

Purpose of Inspection.	Where made.	Total Number of Inspection made During Year.	Total Number Violations found and Abatements Ordered.
Screening Law:	Hotels -----	6	
	Boarding Houses -----	5	
	Restaurants -----	48	
	Lunch Counters -----	18	
	Dining Rooms -----	4	
	Dining or Buffet Cars -	20	
	Kitchens -----	18	
	Meat Shops -----	11	
	Butcher Shops -----	8	
	Grocery Stores -----	23	
	Bakeries -----	18	
	Fruit Stands -----	7	
	Miscellaneous -----	68	
	School Houses -----	3	
Surface Closets and Water Carriage Laws:	Private Residences, etc.	68	
Sanitary Nuisance Laws:	Cigar Factories -----	159	
	Dairies -----	14	
Other Laws under Jurisdiction of State Board of Health:	Steamer -----	14	
	Ice Cream Factory ----	5	
	Isolation Hospital ----		
	Visits -----	230	

		Investigations	Isolations	Fumigations Releases, Etc.
Communicable Diseases:				
	Smallpox ----	54	54	108
	Typhoid Fever	114		
	Tuberculosis --	30		19
	Measles -----	421		
	Scarlet Fever--	16		4
	Diphtheria ---	122		97
	Rabies -----	6		

Cities and Towns inspected during year: Parrish, Lutz, Stemper, Safety-Harber, Seffner, Lake Magdalene, Dunedin.

Respectfully submitted,

(Signed) CHAS. WM. BARTLETT,
Assistant to the State Health Officer.

REPORT OF DR. C. W. D'ALEMBERTE

Western District.

Pensacola, Fla., January 1st, 1916.

Dr. Joseph Y. Porter,
State Health Officer,
Jacksonville, Fla.

Dear Doctor:—Herewith is submitted a report of my activities as Assistant to the State Health Officer during the year 1915:

For the month of January, Typhoid Fever, three cases, tuberculosis four, and diphtheria one case.

February, typhoid fever reported five cases, tuberculosis seven cases.

March, typhoid fever reported, two cases; tuberculosis, eight cases, smallpox five cases and measles one case.

April, typhoid fever two cases, tuberculosis fifteen, and smallpox two cases.

May, typhoid fever two cases, tuberculosis six cases.

June, typhoid fever three cases, tuberculosis three.

July, typhoid fever one case, tuberculosis five cases.

August, typhoid fever four cases, tuberculosis seven, diphtheria two cases.

September, typhoid fever two cases, tuberculosis two, and diphtheria six cases.

October, tuberculosis three cases, diphtheria two, and scarlet fever one case.

November, typhoid fever three cases, tuberculosis five, and scarlet fever one case.

December, tuberculosis ten cases, diphtheria one and scarlet fever one case.

Making total for the year in number of communicable diseases reported:

Typhoid 27, tuberculosis 75, diphtheria 12, smallpox 7, measles 1, scarlet fever 3.

Fumigations during the year were sixty-two distributed as follows:

Fumigations.	Tuberculosis.	Diphtheria.	Typhoid Fever.	Smallpox.	Scarlet Fever.
January	1	1			
February*	4		1		
March	5		1	5	
April	3		1	2	
May	1				
June	3				
July	1				
August**	1	2			
September	3	6	1		
October	1	2			1
November	2	2			2
December	6	1			1
Totals	31	14	4	7	4

*Erysipelas one case fumigated by request.

**Cancer one case fumigated by request.

Inspections under the screening law.		
Private Residences	-----	2,357
Hotels	-----	5
Boarding Houses	-----	27
Restaurants	-----	25
Lunch Counters	-----	6
Dining Rooms	-----	49
Kitchens	-----	51
Meatshops	-----	38
Butcher shops	-----	15
Grocery stores	-----	111
Fruit Stands	-----	70
School Houses	-----	10
Churches	-----	5
Total	-----	2,769

Abatements have been ordered in all cases where the law was found to be violated. The re-inspection I am pleased to note showed there has been good progress made in screening places where notice had been given.

A good number had screened and a large proportion had neglected to make closets entirely fly-proof but am pleased to report that these parties are now taking up the matter and I feel sure that on my next inspection I will find them fly-proof.

Very truly yours,
(Signed) C. W. D'ALEMBERTE,
Assistant to the State Health Officer.

REPORT OF DR. J. Y. PORTER, JR. South Tropic District.

Key West, Florida, January 1st, 1916.

Dr. Joseph Y. Porter,

State Health Officer,

Jacksonville, Fla.

Dear Doctor:—I have the honor to submit the following report of transactions of this office for the year 1915.

During that year a campaign of education has been waged. Various addresses have been made before mothers' clubs and similar organizations, and no opportunity has been lost to spread the gospel of good health.

During the early part of the year interest in plague was revived owing to the reappearance of that disease in Havana, Cuba. The city and county authorities on my recommendation placed a bounty on rats, the amount of which was ten cents per rat; however, they failed to employ a rat catcher, neither was there made any systematic effort to rid the city of rats. The amateur rat catchers who caught and delivered rats to the laboratory were more interested from the financial side, than in anti-plague measures. The city was repeatedly urged to pass rat-proofing ordinances, the New Orleans ordinances being furnished as a guide, but nothing was done.

This office maintained along the water front and in warehouses that received goods from Havana, guinea pig "sentinels" in mated pairs. At first there was a sharp mortality among these pigs, but which on autopsy showed nothing suspicious of plague. At present these deaths have ceased, and as stated, they being in pairs, of late there has been a great increase in their number, amounting to twenty-five in some instances.

The city passed an ordinance requiring garbage cans to be of metal and with a cover, but this ordinance has never been enforced. In July the rat bounty was discontinued, against my protest, and there have been no further rat examinations since that date.

In June and again in October there were reported to this office cases suspicious of plague. These cases were immediately seen and examined, and after cultural tests

Interest
in plague.

Catching
of rats.

and animal inoculation, were declared negative.

Smallpox.

Smallpox occurred in the district twice, the first in April, the infection coming from Algiers, Africa, by means of sailors—the second in May, at Big Coppitt, source of infection unknown. Both infections were rapidly brought under control and there was no further spread from the initial cases. A large number of vaccinations were performed at these times, and it appears that it is only the presence of this disease that will cause persons to avail themselves of this necessary preventive. Numerous vaccinations have also been performed on the employees of the Florida East Coast Railway Company, and at present nearly all employees are protected, especially so of the colored ones.

Scarlet Fever.
Diphtheria.

Scarlet fever and diphtheria have prevailed in this district to about the same extent as formerly. As usual the mortality has been low.

The rate for typhoid fever and infantile diarrhoea is still large. In the absence of morbidity statistics it is impossible to state the exact prevalence of these diseases—that they prevail to a less degree than formerly cannot be doubted. As these diseases in this district are essentially fly borne ones, it demonstrates that the anti-fly campaign is beginning to show results. A steady campaign has been waged against the fly, by means of fly exhibits, posters, and rigid enforcement of the screening laws. However necessary this screening now is and will be, yet it appears that the present method of attacking the fly is a variety of "Close the door after the horse is gone" affair. Accordingly ordinances for the proper regulation of horse stables, with special reference being laid on means to prevent fly breeding—for making toilets fly-proof—for making garbage cans both fly and rat proof, were prepared and introduced in the city council of Key West; I regret to state that only the last passed, and this has not been enforced. However the last legislature having passed a privy law, which is now being enforced, with this law and the screening laws, I look for a still further decrease in diarrheal diseases.

Inspections.

Inspections have been made through the district. On the Florida Keys the inhabitants as a rule use surface water, and privies are of the primitive type. Flies and mosquitoes abound, but no anopheles have been detected. The camps of the Florida East Coast Extension are in

splendid sanitary condition. In May diarrheal disease having appeared at some of the camps, these places were inspected, also the source of their water supply. The camps being in good condition, the water was examined and found to be highly polluted. Certain recommendations were made, which, when carried out resulted in a disappearance of the sickness.

Diarrheal
Diseases.

During the early part of this year, the City of Key West on my recommendation purchased an incinerator of the Nye Odorless type. This was installed but has not been put in operation by the city, as the contractors and the city immediately engaged in a suit, the city claiming that it did not come up to contract. A system of sewerage has been contracted for by the same city and it is expected to start work shortly—also a franchise has been granted for supplying water for commercial purposes.

The work of the sanitary patrolman has been supervised and regulated.

Laboratory work on a small scale has been performed throughout the whole year, and monthly reports made of examinations.

Laboratory
work.

In September I had the honor to represent the State Board of Health and the State Officer at the annual meeting of the American Public Health Association, at Rochester, New York. A special report was made of this detail.

It is felt that sanitary conditions throughout the south tropic district have been bettered. A consistent effort has been made to arouse interest in health affairs. That people are taking more interest is evidenced by the fact of the larger number of complaints of sanitary nuisances, coming into this office. A few typhoid vaccinations have been performed but I regret to state that the number that have availed themselves of this protection have been exceedingly few.

Typhoid
Vaccinations.

In conclusion I will state that the work in this district has shown results, for in the City of Key West (the only place in this district having vital statistics) the total deaths dropped from 360 year before last to 279 last year. While the population has decreased, yet the death rate has decreased to a much greater extent than the population rate.

Very truly yours,
(Signed.) J. Y. PORTER, JR.,
Assistant to the State Health Officer.

REPORT OF DR. C. T. YOUNG.

State at Large.

Plant City, Florida, January 1st, 1916.

Dr. Joseph Y. Porter,
State Health Officer,
Jacksonville, Fla.

Dear Doctor Porter:—I am enclosing my report for the year 1915, as requested by your circular letter of a recent date. The schedule of itineraries gives a brief statement of the various activities which have been undertaken at your direction during that period, a full report of which has been filed with your office from time to time. A few subjects, dealing with municipal sanitation, have however, been selected for discussion, in a somewhat different manner.

Sanitary
Engineering.

During the progress of the year which has just passed, it has been my duty at intervals to respond to requests for sanitary surveys, to investigate conditions in and about water and sewage disposal plants because of alleged nuisances and for the purpose, more frequently, of ascertaining the relative efficiency and sanitary merits of the various methods employed and to detect any faults or flaws in their construction and operation which might be a source of detriment to the communities employing them. Blue prints specifications, descriptions were secured whenever possible and with inspection notes referred to a very distinguished sanitary engineer, not a civil engineer in a new garb, but a genuine sanitary engineering expert.

The pursuit of this practice has been replete with surprises and opportunities for instructive observation. His opinion regarding the various Imhoff tank installations was little short of an awakening and has indicated a line of beneficial study. A certain city had installed longitudinal tanks with shallow digestion compartments; they could expect an increased sludge accumulation because of the imperfect digestion. Tanks of the circular design with a deeper digestion chamber are the more efficient.

My own town had just constructed what proved to be an earlier and discarded design by Dr. Imhoff, because some ill-arranged weirs and baffles produced an upward

current in the settling chamber which interfered with sedimentation and decreased the efficiency of the tanks.

Another city had bonded for sewerage and was advertising for bids for the construction of a battery of tanks which were so poorly designed in their sedimentation chambers, placing of weirs and baffles, that it was declared that sewage would pass through without appreciable reduction of the solid matter.

Three towns with tanks in operation, appeared to be ignorant of just what attention was necessary for their successful operation.

In some instances the disposal of sewage had been made without a study of the local situation and the conditions necessary for its purification. Raw sewage, which should have at least been clarified was being discharged into rivers and shallow streams running through populous areas. It was proposed to use one story tanks at some points where the two story or Imhoff tank would have been a great deal more satisfactory.

Some rather glaring examples of structural defects in sewer mains have come to light. At one splendid little town, 3200 feet of the lines were giving trouble and it required an outlay of a hundred dollars a month to keep them open. At the time of my visit about eight hundred feet of a trunk sewer running through the center of the town, because of open or loose joints, had filled with sand and converted a chain of manholes into open septic tanks.

In another community it has become necessary to abandon one of the largest and most expensive sewers because of sand seepage through open joints.

There has also been a great waste of funds in water works, so much so that some cities have sold their plants to private concerns to escape the further burden of inefficiency, mismanagement and extravagance. The providing of an adequate fire protection without a proportionate increase in revenues, expensive but inefficient machinery, defective reservoirs and costly experimentation have imposed an often insupportable burden upon municipal resources.

The question naturally arises, who pays for this waste occasioned by bungling engineers? Who returns to these struggling towns the thousands they are annually burying, never to be resurrected, in engineering mistakes?

Who is responsible for the increased death rate which the proper installation of all these sanitary arrangements would have prevented?

It is recommended that legislation be enacted requiring that the plans of water and sewage disposal plants be submitted to the State Health Officer for review and approval.

The Sanitary
Privy.

In the campaigns conducted for the betterment of health conditions in several sections, a special effort has been made to warn the people of the danger which comes from the careless handling of the discharges of the human body and suggestions for the correction of faulty methods of sewage disposal have been given precedence over all other recommendations.

At other times, while engaged in a work more closely related to soil pollution, and more impressive to the ocular sense, in the diseased and impoverished conditions resulting from the abuse, a persistent effort was made to convince those among whom we labored that the final elimination of the malady in question depended entirely upon the construction of sanitary privies and a continued watchfulness to maintain them as such. It was declared that the cures effected would be only temporary, should those responsible, fail to provide these very necessary appurtenances. Sewage borne diseases were discussed, pictures of foul and filthy surface closets exhibited and all the essentials in the construction of sanitary privies fully demonstrated or emphasized.

The talks and demonstrations failed to impress the hearers. Local ideas were unaffected, popular traditions remained undented and as a consequence the rejuvenated child resumed the barefooted habit and the practice of acquiring hookworms. Other health regulations met with the same indifferent enforcement.

At this state the State Health Officer went before the legislature and secured the passage of a law making it a misdemeanor to keep or maintain surface toilets within incorporate limits which were not fly-proof and not in conformity with plans recommended by the State Board of Health. The enactment is undoubtedly one of the greatest sanitary measures that has been passed in some years and its wholesome effect in the furtherance of the work is already apparent on all sides.

While investigating conditions for the purpose of determining the cause of the pollution of the water supply of a promising little city in the southern part of the State, a thorough inquiry was made into the various methods for the disposal of its sewage. Although a very creditable sewage system had been recently installed, there still remained some six hundred open unscreened insanitary surface toilets, within the city limits, and as the indications were that these institutions would probably remain for some time a menace to the health of the municipality, it was decided to attempt to secure their reconstruction along lines required by the new law, and to make a study of the various methods or efforts directed toward that accomplishment.

Articles were written on sewage borne diseases emanating from surface toilets and their pollution of the soil; flies and their activity in spreading disease germs contained in human excrement when deposited in privies of the usual design and attention was called to the number of these institutions located about the town; and the sanitary privy and the essentials for its construction. These contributions were printed at intervals in the local newspaper always in an attractive manner and in a prominent place in the makeup of the periodical.

The editor is an enthusiastic young man and one of the most versatile, capable and conscientious members of the State Press Association; his forms are never too full for the admission of worthy matter, nor is he ever too busy to champion a worthy cause. It is doubtless unnecessary to remark that the success of the crusade was in a large measure due to his support and co-operation.

An ordinance, modeled after some of the best in the country dealing with this particular phase of sanitation was drawn up by the City Attorney and submitted to the Town Council. They passed the measure without delay and after a few weeks it became a law.

Accompanied by the Chief of Police an inspection of every privy in the town was made. Definite instructions were given to the property holders as to how these buildings should be reconstructed to comply with the provisions of the measure. Literature dealing specifically with the erection of sanitary toilets was widely distributed. A model of a sanitary privy was ordered from a local con-

cern and placed on exhibition so that all interested could get a more accurate idea of what we were trying to accomplish.

When the ordinance became effective it was ascertained by inspection that over fifty per cent of the householders had not complied with the requirements of the law. The time limit was then extended and the Police Department ordered to arrest all violators at the close of the period. When this extension had expired, an inspection was again made and it was ascertained that some of the city officials were among the offenders. The enforcement was again postponed.

In the meanwhile a new set of officials having been inducted into office; the enforcement of health regulations was again taken up. The Council, not to be outdone in courtesy by their predecessors, gave a further allowance of time to the delinquents and again ordered the Police Department to arrest the recreants at the close of this final interval.

At the conclusion of the interim the police proceeded as instructed and in every instance that an offender appeared before the Mayor he always drew such a fine as is calculated to make a man respect the law; those with reasonable excuses were given a day to fix the closet or a fine of ten dollars. The paper carried the court proceedings on the front page. The Mayor took a firm stand; he had announced at the outset that the measure, with other sanitary laws would be enforced. He has been as good as his word.

A great many efforts in as many different directions have been made to secure the fly-proofing of privies but I doubt if any have been as productive of results as those court proceedings. The effect was simply wonderful, and has caused one to wish that many of our other state laws for the preservation of the public health might be written into the ordinances of the several thrifty municipalities about the State.

While undoubtedly, a great deal is accomplished in an educational campaign, and it is only necessary for a large number to know what is right, for them to go ahead and do it; but there is another, and a larger percentage of our people who have to be handled by more compelling means—by such assistance in the enforcement of the law as

is afforded by our Police Departments. A further argument for the relegation of the enforcement of some state health laws to the different municipalities is the overloaded condition of the docket of the county courts and the growing tendency, as a consequence, to nol-pross all cases of a minor importance.

Given a good editor, a courageous mayor and a friendly council few measures for the betterment of the local sanitation become impossible.

As an illustration of just what the Board is doing in its efforts to improve the sanitation of the many towns in the State, I submit the sanitary survey of the little city of X----, so called at the request of some citizens who were present when the report was made, and who were apprehensive that its publication would give them some rather undesirable advertising. While conditions prevalent there are common to almost every other town of a similar size, their request has been acceded to and such matter eliminated as would tend to definitely fix the location of the place in the mind of the reader.

"The inspection of the sanitary conditions of 'X' was undertaken primarily at the request of the Board of Trade for the purpose of ascertaining the condition and efficiency of the various methods of sewage disposal employed by those living within the municipality. It was further desired that it be determined whether or not said appurtenances were sufficient to dispose of the community waste products in a manner which would not endanger the life and health of the citizens. It was popularly expressed that if the present means were adequate and not a menace, that it would be unwise to incur the necessary bonded indebtedness for a sanitary system of sewerage at this particular time.

Report of
sanitary
conditions
of "X"

As the work advanced it was requested that the scope of the survey be so broadened as to include the general sanitary conditions of the place. "X" is located in the west central section of the county. It has a population of about 1500. The industries are the usual commercial enterprises, farming, fruit growing and trucking. Nearby plants are among the patrons of the business interests. Adequate railroad facilities, good roads, excellent churches, schools and hotels together with unusual opportunities for boating, hunting and fishing have not only made the town a popular place with the winter traveler but a desirable place for the permanent abode of the substantial home-seeker as well. The corporate area embodies a territory one half mile wide by about two miles long.

The surface contour appears a little irregular and pockety with several more or less shallow basins scattered about. There is, however, a main ridge or elevation occupying the central area running from north to south, which deflects the flow of surface water in an easterly and westerly direction. There are two standing bodies of water or ponds about the outskirts of the town.

Drainage.

Soil.

The surface sand varies in thickness from fourteen inches to over ten feet; the clay from a few feet when present at all, to eight or ten feet, next the quick sand and kaolin for five or six feet followed by the hard pan. Then comes the limestone. Surface strata are irregular and not parallel to surface contour. Surface water is found at a depth of from ten to fifty feet, the common depth being less than thirty feet. Deep wells encounter, according to Matson, hardwater, at from 75 to 100 feet.

Water Supply.

The water plant is privately owned. About 80,000 gallons are consumed daily by about 260 patrons. It is estimated that there are between 75 and 100 families in town using water from local pumps or open wells of a shallow depth.

The water equipment is housed with that of the ice and electric plants under a common roof. The power is generated by steam boilers. Other units are Knowles duplex pump, 800 G. P. M.; steam auxiliary single acting Burman 350 G. P. M., and a motor driven McGowan 300 G. P. M., making a total capacity of 1450 G. P. M. The tank has a capacity of 80,000 gallons and rests upon a steel tower 80 feet high. The water is drawn from four wells, two and one half, four, six and eight inches respectively, which reach a depth of about 100 feet. Cased depth 95 feet. The supply appears to be abundant. A recent analysis reports it "very low in mineral content and of exceptionally good qualities." The bacterial count was given at 850 a c.c., which appears a bit high for a deep well as such a water should contain but few organisms, in fact, less than a hundred being all that is permissible for a clean water. No colon B. were found or evidence of sewage contamination. Specimens should be taken at regular intervals and sent to the laboratory at Jacksonville for examination. (The owner of the water plant was called upon to read a report of an analysis of the water which he had just received showing that the water was polluted. He had just returned to the city from a short vacation.)

Inspecting the premises two insanitary toilets and a stable were noted within 60 feet of the wells. None of these accessories, that, the stable and septic tanks, etc., should be permitted within three hundred feet of the well. The privies should be made water tight and fly-proof and moved farther away.

Two colored sections were using water from open dug wells and pumps. The wells were cased with brick laid in mortar to a depth of from twelve to twenty feet. To prevent contamination from surface water these casings should be constructed solidly of cement and seated firmly in the rock or clay. No wells were covered, as a consequence, mosquitoes were breeding in most all of them.

There are in use approximately, two hundred and forty open surface toilets, forty-five cess pools, fifteen septic tanks.

Quite a number of privies were inspected, while a large number are of substantial construction many appear to be erected almost entirely for purpose of concealment. Buckets were supplied in but a few instances. Some had rusted and the excrement was leaking out on the ground; in others it was deposited direct upon the soil. The trap door was either absent or in bad order so that in all of them flies had access to the night soil. Recent legislation requires that in addition to preventing soil pollution that they be fly proof. This is accomplished by building the compartment in which the buckets stand of sound timber, fitted tightly and without knot holes or cracks. Openings for ventilation should be covered with wire screenings sufficiently close to exclude flies. The hinged door at the rear should be supplied with hooks or buttons and should fit so as to prevent the

Sewage Disposal.

access of flies to the night soil containers. Seat covers should be adequate and so arranged as to fall over and completely close the opening when not in use. All this will be necessary to prevent flies from breeding in the excrement or crawling about over it and carrying the germs of such diseases as typhoid and dysentery to our food supplies.

The wagon tank should be repaired. Liquid fecal matter had leaked from its rear door as it stood on the main street recently.

Cess pools are those excavations in the ground which are covered over and which are provided with walls of pervious material. Sewage discharged into them seeps at once into the surrounding strata without a partial treatment. This custom is a dangerous one.

Organisms which purify sewage in the ground are found in the first five feet of sandy soil. As long as the volume of work which they have to do is supplied to them from or near the surface, in moderate amounts and at such intervals as will permit the sand to dry out and become aerated between times they work effectively. But if, on the other hand this material is supplied more or less continuously and in excessive amounts the ground about becomes water logged or saturated, organisms inactive and pollution extends to the deeper or water bearing strata.

For the method to be safe then it will be necessary for the first chamber to be water tight, that a second smaller chamber be joined to it which is equipped with an automatic siphon for the intermittent discharge of the end product. This effluent of out-going water should be distributed through loosely laid tile about a foot under the surface, one half to one foot for every gallon of sewage, over an adequate body of sand at a distance of about two hundred feet from the water supply. Such a plant will cost between \$150.00 and \$175.00 for a family of five people.

Those septic tanks which discharge their outflow into a sewer line, emptying into the lake canals are accomplishing all that can be expected of such a method and are among the most sanitary of any of the conveniences employed by the city for this service.

Those tanks which are releasing their outflow continuously into nearby soil should be equipped with dosing chambers and automatic siphons for the intermittent discharge of the effluent through surface pipe loosely laid as previously described.

As a surface toilet is more or less of an abomination, a cess pool a menace and septic tank under the best of circumstances an object of occasional concern and a method to be watched to prevent the introduction of pollution into the water supply, it would appear that the only ideal method for disposing of sewage is by the water carriage system, by which the waste matter is washed rapidly away through lines of pipe to some point where it can be treated in an approved manner.

Engineer experts skilled in this particular line of investigation are advising the passage of sewage through Imhoff tanks and the subsequent discharge of the outflows into unused bodies of water of sufficient volume, as one of the best modern means of treatment. Should a more stable end water be desired after leaving the tank it can be run through a spray filter.

As no question is ever settled until settled right, municipalities cannot hope to secure immunity from the annoyance and vexation of an inadequate residence sewage disposal method until a common system of closed sanitary sewerage has been installed. Nor can they expect to guarantee to their people a reasonable freedom from sewage borne disease until such a life saving method has been pro-

Garbage.

vided for them. It is to be hoped that the property holders of "X" will lay aside all differences and decide in favor of the inauguration of this great protective health measure.

This waste matter appears to be disposed of in rather an indifferent manner. While the majority of the premises were clean, others were littered with unsightly debris. No receptacles have been provided about town for the collection of waste paper and dry refuse. At the back door of homes inspected no metal garbage cans were seen for the reception of the kitchen refuse and rejected food. The cans and bottles were piled in boxes awaiting the trash wagon.

Garbage is handled best by keeping it separate. The dry refuse should be burned regularly. Animal and vegetable matter which in decomposition becomes a medium for fly breeding should be drained dry, wrapped in paper and thrown in metal garbage cans, with tight fitting covers, and carried out regularly to the dump ground and buried.

Dumping
Grounds.

Bottles, cans and anything in the refuse line which will contain water had best be demolished or buried or else they will hold water and breed mosquitoes. Ashes can be used to fill low places.

This place was badly littered by unsightly debris. The city refuse is being disposed of in a careless way. All that is combustible should be burnt promptly. Non-combustible matter should be demolished and disposed of in a way that it will not breed mosquitoes. The fecal matter from the toilets should be thrown into trenches dug in a good sandy high place and not deeper than five feet. Each dumping should be covered well with a layer of sand.

Manure.

Of all the places adapted to fly breeding the manure pile at the stable is the most favorable. They select manure because of its retained heat and moisture as a preferred medium for breeding purposes. Stables inspected were mostly mirey and unsightly with the accumulations of manure. It seems strange to require food products to be protected from the contamination of flies, then make no effort to eliminate or restrict their breeding places.

Manure should be gathered up promptly and thrown into tightly closed bins and once a week carted off, broad-casted and plowed under. The stable should be screened, the stalls kept dry.

Screening.

All food which is eaten raw or without further cooking should be effectively protected from flies. An inspection of grocery stores, bakeries, meat markets, fruit stands and restaurants revealed to my surprise that in every instance an effort was being made to exclude the fly, though some were not keeping the screen doors closed continuously as they should. In others the screen frames had warped and were badly fitted.

Complete results are obtained from this protective measure when the screen frames are made of strong substantial wood and are supplied with a durable 18 mesh screening. They should be fitted snugly to the entire opening, and operated in a careful manner.

Mosquitoes.

Mosquitoes have been annoyingly present, at times, during my stay in "X." Large numbers of them are doubtless breeding in the nearby grass bordered ponds, but it is my opinion that a still larger number are breeding about the different premises in neglected barrels, bottles, cans, gutters, wells, and cisterns.

An enthusiastic crusade directed against this troublesome insect would doubtless yield gratifying results. The vacant lots in some sections covered with tall weeds afford an ideal hiding place for these pests.

Health
Organization.

"X" was incorporated first under the General Statutes and later by a special act and carries the powers conferred by both enactments. The only local board charged in any way with the public

health is the Committee on Sanitation of the City Council. Ordinances have been passed dealing with unclean premises, slaughtering houses, swine, unwholesome provisions, removal of carcasses, reporting of contagious diseases, throwing dirty and rotten flesh, care of privies and closets, burial of excrement—all of which are more or less indefinite in expression and according to the officials are not enforced. A new code of ordinances dealing more specifically with health matters should be drawn and passed.

While the town has not been entirely free from sewage borne maladies it has been almost so. There has not occurred an epidemic of a trouble that could be attributed to the water or sewage. There are a few cases of malaria present about the town and country of a rather severe type. Otherwise health conditions at present are said to be good.

For the improvement of the sanitation about "X" it is recommended:

1. That a zone of safety be established about the water plant and such sources of pollution as insanitary toilets, stables cesspools and septic tanks not be permitted nearer than three hundred feet from the wells:

(a) In view of the present state of pollution it would be unwise to drink the water without boiling until such a time as it can be shown after close examination and repeated analysis that the pollution is either dangerous or harmless, then a further course can be more wisely determined upon.

2. That all insanitary open toilets be remodeled so as to make them flyproof and that water tight receptacles be supplied for collection of the night soil and the prevention of soil pollution as is required by the state law.

(a) That all cesspools, either be built tight and pumped out when full, or disinfected with a solution of quick lime, ten pounds to ten gallons of water, filled with clean sand and abandoned. That septic tanks or Imhoff tanks for groups of residences be constructed according to specifications outlined in Publication 99, and a special bulletin of the State Board of Health, and installed in their stead. Care should be taken that these plants are not located nearer than two hundred feet of a local water supply.

(b) That all septic tanks now in use whose outflow is not discharged through water tight piping into the lake, be required to be equipped with dosing chambers, automatic siphon and filtering arrangements according to above specifications.

3. That receptacles be furnished at public places for the collection of dry rubbish and when necessary, metal garbage cans for the collection of such matter as becomes in its putrefaction a fly breeding medium. That all premises be required to supply themselves with these containers, which shall at regular intervals be collected and disposed of by the sanitary department in an approved manner at the dumping ground.

(a) That all stables and cowlots be placed under a regular inspection and be required to be maintained after a manner previously indicated.

4. That a health board be appointed by the Mayor to consist of three citizens, one of whom shall be from among the local practicing physicians and who shall be the Health Officer of the municipality.

(a) That such ordinances be passed and enforced as may be necessary to control the local sanitation.

5. And lastly that a systematic inspection under the direc-

tion of the Health Officer be maintained of all premises to prevent pollution of water supplies, dangerous methods of sewage disposal, careless handling of garbage, breeding of flies and mosquitoes, contamination of food supplies and to see that all other health regulations are enforced.

Other conditions among which is the inspection of the milk supply, it has been impossible for me to handle because of the shortness of the time that could be devoted to this work.

I desire to express my appreciation to Mr. S. President of the "X" Board of Trade and other citizens for their kind, generous and cordial cooperation during the progress of the investigation."

Respectfully submitted,

(Signed) C. T. YOUNG,
Assistant to the State Health Officer.

REPORT OF DR. C. H. DOBBS.

Office of the State Health Officer.

Jacksonville, Fla., January 1, 1916.

Dr. Joseph Y. Porter,
State Health Officer,

Jacksonville, Florida.

Dear Doctor:—

I beg to submit herewith, as briefly and concisely as possible, a report of my activities during the year 1915.

Introduction.

By far the greater part of the year has been spent in Jacksonville in the discharge of my duties in connection with the routine work of the executive office; which have included a general supervision, under the direction of the State Health Officer, over the details of management of the affairs of the office and of such matters as called for attention in connection with the varied lines of work of the Board throughout the State.

Correspondence.

The volume of correspondence has increased enormously during the year, necessitating the employment of an additional stenographer and a filing and mailing clerk, in order that the Chief Clerk might be relieved of these routine duties which diverted much of his time and attention from other more important matters under his supervision.

Publications, and Forms.

Much time has been devoted to the preparation of material for Health Notes, and to a study of methods for further popularizing this bulletin. The steadily increasing number of names upon our mailing list, practically all of which have been added upon request, is very encouraging.

There have been prepared for distribution, exclusive

of Health Notes, nineteen new publications and posters, and considerable time has also been given to the preparation of the necessary forms and blanks for the collection of data concerning pellagra, and for use in the anti-tuberculosis campaign and in the medical inspection of school children.

There follows a tabulation of the monthly and total distribution of literature during the year:

Month.	Literature distributed upon request. No. of Pieces.	Mailing List Health Notes.	Mailing list Press Service.	Total Distribution.
January	3,380	6,600	1,000	10,980
February	7,792	6,750	1,000	15,542
March	7,471	6,800	1,250	15,521
April	5,455	6,900	1,000	13,355
May	6,306	8,100	1,100	15,506
June	4,070	8,150	1,100	13,320
July	898	8,200	1,100	10,198
August	3,446	8,400	1,100	12,946
September	1,659	8,550	1,375	11,584
October	1,148	8,600	1,375	11,123
November	1,147	8,650	1,100	10,897
December	1,341	8,725	1,375	11,441
Total	44,113	94,425	13,875*	152,413

*The press bulletins are mailed out each week to the newspapers of the State, and are regularly published by the majority of them. The total given above shows only the number of copies thus furnished the newspapers, and gives no index of the number of individuals actually reached by these articles.

Only two examinations have been held during the year; the embalmers' examination (a full account of which will be found elsewhere in the report of the Board of Embalmers' Examiners), and an examination of applicants for the position of District Tuberculosis Nurse of the State Board of Health.

Examinations.

The latter was conducted by a specially appointed committee composed of Dr. R. H. McGinnis, Dr. Ellen Lowell Stevens and Mr. Marcus Fagg. Of the seventeen applicants only six were successful in qualifying for the position, and from these six the four appointments were made. In order that the high standard required of these nurses may be made apparent, and that the broad scope of the work expected of them may be shown, I append hereto the list of questions which composed the examination:

Examination for tuberculosis Nurses.

I. What parts or organs of the body are most frequently affected by tuberculosis? Name at least five.

II. Define (1) miliary tuberculosis, (2) Pott's Disease, (3)

Scrofula, (4) Lupus, (5) phthisis.

III. (1) What is the causative agent in tuberculosis? (2) What part does heredity play in its causation?

IV. What are the most frequent means of dissemination of pulmonary tuberculosis?

V. (1) Describe fully the early symptoms and physical signs of pulmonary tuberculosis. (2) Which of these symptoms and signs are the most important in an early recognition of the disease?

VI. What do you consider a positive proof of the existence of pulmonary tuberculosis?

VII. Outline fully the procedure which you would advise for adoption by the patient and family, in an early case of pulmonary tuberculosis.

VIII. Describe in detail your idea of the proper plan of anti-tuberculosis campaign in any given urban community. (2) In a rural community.

IX. What significance would you attach to negative laboratory findings in the examination of a specimen of sputum from a person apparently in the early stages of pulmonary tuberculosis?

X. (1) Mention the essential features of the treatment of an early or moderately advanced case of pulmonary tuberculosis. (2) What part does each play in the treatment and why?

XI. Give in detail one day's diet for a consumptive, in a rural family of moderate means; stating articles of food, amount of each, and hours of feeding.

XII. What is the direct cause and significance of hemorrhage in a case of pulmonary tuberculosis?

XIII. (1) What are the early and most important symptoms and signs of Coaxalgia? (2). What would you advise in a case of this character?

XIV. Discuss the use of drugs in the treatment of pulmonary tuberculosis, mentioning any which may be used to advantage.

(Answer all of the above fourteen questions).

(Answer any six of the following eight questions.)

XV. What measures do you consider necessary in the control of an epidemic of (1) smallpox, (2) diphtheria, (3) typhoid fever, (4) scarlet fever, (5) malaria?

XVI. Discuss the most important features of rural sanitation in Florida.

XVII. Discuss briefly the causation, treatment, symptoms and prevention of pellagra.

XVIII. Discuss briefly the symptoms, treatment, diagnosis and prevention of hookworm disease.

XIX. What advice would you offer a family where some member of it has just been bitten by a dog or other animal?

XX. (1) Name five methods of sewage disposal. (2) What advice would you offer to a rural family of limited means who contemplate installing some sanitary method of sewage disposal?

XXI. (1) Name five sewage-borne diseases. (2) Name at least three fly-borne diseases. (3) Name at least two mosquito-borne diseases.

XXII. Name the diseases which may be prevented by vaccination; stating the method of vaccination and the average duration of the resulting immunity.

While in Jacksonville I have maintained a supervision over the care and treatment of patients at the Duval County Isolation Hospital; but owing to the decreased prevalence of smallpox, this work has consumed very little time.

Isolation
Hospital.

In fact for a period of six months during the past spring and summer not a single patient was under treatment at this hospital.

Owing to the fact that my time was rather fully occupied with the office work, I have had comparatively few special details in connection with the investigation and control of communicable diseases. Quite a number of scattered cases of typhoid fever and diphtheria, and a few of smallpox and scarlet fever, all in the immediate vicinity of Jacksonville, have come under my observation; but these were all promptly controlled by the institution of proper measures, and no spread of the diseases resulted.

There are only two details of this nature which I think merit special mention: A typhoid outbreak in Milldale, one of the suburbs of Jacksonville, and a number of cases of smallpox which occurred at Hilliard. At Milldale it was found that there had occurred, within a period of two months, eight cases of typhoid fever, six of which were confined to an area approximately equivalent to one city block, and all within 150 yards of a residence where the disease had existed some three months prior to the development of the first of these cases. In view of the facts that all of these residences were unscreened, that the only method of sewage disposal in use was the open surface privy, that all available data as to milk and water supplies and the consumption of uncooked vegetables was entirely negative, and especially because of the peculiar grouping of the cases, it seemed to be very clearly shown that the outbreak originated from the earlier case previously mentioned and that its transmission was in all probability due to flies.

It will be recalled that during the summer of 1914 typhoid vaccine was administered to about two hundred residents of this locality; which, I am quite sure, partially accounts for the easy control and speedy subsidence of this outbreak.

The smallpox outbreak at Hilliard, I regret to say, did not terminate so speedily nor so satisfactorily. On the occasion of my visit there I conferred with Dr. C. C. Fuqua, who had previously seen some eight or ten cases of an eruptive disease which he had tentatively diagnosed as smallpox, though he felt a little uncertain as to the correctness of this diagnosis because of the unusual mildness of the attacks and the absence of many of the characteristic symptoms of

Special De-
tails in inves-
tigation and
control of
Disease.

Typhoid
Outbreak at
Milldale.

Smallpox
Outbreak at
Hilliard.

the disease. He very kindly placed his automobile at my disposal and accompanied me upon a visit to all of these patients; which resulted in a speedy confirmation of his diagnosis. At the same time I succeeded in vaccinating the family of the foreman of a large logging camp near Hilliard; but although free vaccination was offered to anyone desiring it, both at this time and later by Dr. Fuqua, very few others availed themselves of this protection which was offered them. Nor were the municipal authorities at all careful in the enforcement of restrictions as to isolation of patients; in fact, it seems that they were particularly indifferent and negligent in the discharge of their duties, as, to the best of my knowledge, no effort whatsoever was made to put into effect the necessary measures which were advised for the control of the outbreak. As a result of this negligence and the opposition to vaccination, the disease continued to spread in Hilliard and throughout that vicinity for several months, necessitating another visit by Dr. D. G. Humphreys, Agent of the State Board of Health at Fernandina, and gaining for the town a great deal of rather unenviable notoriety. Such occurrences are discouraging, but when compared with similar outbreaks elsewhere, which are readily controlled through vaccination, they serve to bring clearly before us the great value of this preventive measure, and to emphasize the truth of the oft-repeated statement that smallpox is solely a matter of individual choice and no one has to have it who cares to avoid it.

"Surveys" and
Inspections.

During the year it has been my duty to investigate many complaints relative to alleged insanitary conditions, especially in the vicinity of Jacksonville, and to make several "surveys" of sanitary and health conditions both here and in other localities. The great majority of these inspections and surveys were relatively unimportant, but the following are worthy of mention here:

Sanitary
Survey of
Live Oak.

Early in February, at the request of the newly-created city board of health, I was detailed to Live Oak for the purpose of making a sanitary survey of that city and submitting recommendations for whatever changes or improvements might be considered necessary along sanitary lines. In this work, which consumed several days, I was greatly assisted by Drs. W. C. White and J. M. Price, the latter a member of the city board of health, and by Mrs. W. C. White, the Secretary of that Board. After completion

of the survey copies of my report, embodying a full description of existing conditions and offering twenty-seven recommendations for improvement, were sent to the municipal authorities and to the city board of health. I am gratified to say that several of the most important recommendations, relative to further purification of the effluent from the municipal sewage disposal plant and to safeguarding the purity of the water supply, were adopted and put into effect very soon thereafter. It is regrettable, however, that many of the suggestions were not carried out, this being due, I presume, to a lack of the necessary funds, or rather to the fact that the municipal authorities decided,—unwisely, I fear,—that the funds might be spent to better advantage in other directions.

During the same month I visited Palatka for the purpose of investigation of the water supplied that city by what is known locally as the "Old Water Works." This investigation, in which I was assisted by S. C. Stallings, the city engineer, included the collection of a number of specimens for laboratory analysis, and a complete survey of the collection area from which this water supply is secured. The supply is derived from "springs" arising in a deep ravine near the out-skirts of the town, but these springs probably have their origin in the seepage from the surrounding territory; and, as the survey of this area showed abundant opportunities for pollution of the water drained from it, the report of this survey advised that this source of supply be abandoned so far as furnishing water for drinking purposes was concerned, though the "softness" of this water renders it excellent for laundry purposes. The laboratory examination of the specimens collected revealed a high degree of contamination, and fully supported the adverse report which I was compelled to render after my study of the conditions under which this supply is collected.

Study of
Water Supply
of Palatka.

At the request of Dr. D. B. Williams, then City Health officer of South Jacksonville, I attempted a survey of that city with the view of locating the more important mosquito-breeding places, and offering suggestions for the correction of these conditions. Five collections of water were observed which were believed to be of particular importance in this connection; and recommendations adapted to the varying conditions, and including drainage, filling and oiling, were submitted. I am pleased to say that these rec-

Survey of
South Jack-
sonville.

commendations were promptly put into effect.

Survey of
Milldale.

Educational
Health
Exhibit.

In connection with the investigation of a typhoid outbreak at Milldale, an account of which appears in this report, some time was given to a study of the sanitary conditions prevailing in that community. As a result of this survey, a "Civic Improvement Club" was established through the efforts of Rev. P. T. Taylor (who had requested the investigation), with the support of Mr. A. G. Cummer, the president of a large manufacturing company which furnishes employment to the majority of the residents of this locality. This Improvement Club was organized with the object of providing for an efficient scavenger service at small cost, and of improving as much as possible the sanitary conditions in the community. I believe some measure of success has rewarded their efforts. Probably more time and thought have been devoted during the past year to the Educational Health Exhibit than to any other single line of work, and I feel that its importance and the far-reaching results which I am sure will follow, render this labor well worth while. The preparation of the Exhibit was begun in the fall of 1914, and its first presentation was during the annual meeting of the American Public Health Association which was held in Jacksonville during the early days of December of that year. It was then decided to send this Exhibit throughout the State as an added feature of the rather extensive educational campaign which had been conducted along other lines for years past by the State Board of Health. Much care was given to supervision of the construction of suitable packing cases in which this material might be safely and conveniently shipped and upon which it might be quickly mounted for display. All arrangements were finally completed and in February the Exhibit was launched upon its maiden voyage. Since that time much new material has been prepared and added to it, and the Exhibit has now more than doubled both in the amount and the variety of material which it contains.

Exhibit
Details

My first detail for exhibit duty came in May when, with the assistance of Miss F. D. Herndone who had previously been permanently assigned to this line of work, I supervised its transportation to DeLand and its display there during the annual meeting of the Florida Medical Association.

Returning from DeLand, I proceeded to St. Augus-

tine to assist in the installation of the Exhibit there. My next assignment for this work occupied practically my entire time for more than six weeks, beginning on July 30th, when I left Jacksonville for a tour of the East Coast, and ending on September 17th, when I returned to Jacksonville. During this time the Exhibit was displayed at Melbourne, Fort Pierce, Miami, Fort Lauderdale and West Palm Beach; and everywhere met with a most enthusiastic reception.

During the early months of the year plans were laid by the State Health Officer for the purchase and equipment of an "Educational Health Exhibit Train" which would greatly simplify and facilitate the movement of the Exhibit from point to point and would provide a feasible means of displaying it in many small towns and rural communities where it would be impossible to secure a hall of sufficient size to accommodate it. Arrangements were accordingly made with the Pullman Company for the purchase and necessary alteration of three cars, which were finally completed in October. It then became necessary for a representative of the State Board of Health to go to Chicago for inspection and acceptance of these cars; and, being assigned to this duty, I left Jacksonville for Chicago on October 25th, returning with the cars on November 8th. From that date until the close of the year practically the whole of my time, aside from that spent in the discharge of routine office duties, was fully occupied in the installation of the exhibit material in the cars. The many varied details and perplexities which arose in this work consumed much more time than had been anticipated, and the train was not quite completed and ready for its initial trip at the close of the year.

The Exhibit
Train.

When this Educational Health Exhibit Train leaves Jacksonville in January 1916 for the beginning of its long tour a new epoch will begin in the health work of the State, for in this manner there will be brought almost to every home of citizens of Florida these practical demonstrations and striking lessons in the simple fundamental principles of right living and health preservation.

In the foregoing report I have attempted to summarize the more important features of the year's work, in which I was personally engaged but which is more com-

pletely though briefly outlined in the following monthly resume of my activities:

DETAILS PERFORMED IN 1915.

DATE	PLACE	NATURE OF DETAIL
January	Jacksonville	Routine work, office of the Assistant to the State Health Officer. Inspection and treatment of smallpox patients Sand Hills Isolation Hospital. Sanitary inspection made in suburbs. Preparation additional exhibit material and supervising crating of exhibit for travel.
February	Jacksonville	Routine work, office of Assistant to the State Health officer. Preparation additional public health exhibit material. Supervision and treatment of smallpox cases at isolation hospital. Investigation alleged sanitary nuisances Jacksonville suburbs; management contagious disease outside city limits.
February	Live Oak	Sanitary survey of city (two visits.)
February	Sanford	Investigation water supply. Sanitary survey water shed from which city water supply is obtained.
March	Jacksonville	Routine work, Office of the Assistant to the State Health Officer. Preparation of additional exhibit material. Investigation alleged sanitary nuisances outside city limits. Visits to isolation hospital for supervision and treatment smallpox cases.
March	Palatka	Examination of water supply furnished city by the "Old Water Works"; survey of water shed and collection of area from which this supply is obtained.
March	Hilliard	Investigation smallpox cases; vaccination.
March	Dinsmore	Investigation reported smallpox.
April	Jacksonville	Routine work, office of Assistant to the State Health Officer. Preparation additional exhibit material. Investigation reported pellagra near Fishers Corner. Investigation reported case smallpox near Fishers Corner, removed to Sand Hills isolation hospital. Interview with attorneys of A. M. A. in connection with suit by Wine of Car-dui manufacturers. Investigation report sanitary nuisance on McDuff Ave. Investigation reported diphtheria, Mon-

		chief Ave. Confirmation diagnosis of scarlatina E. 17th St; isolated. Investigation sanitary nuisance distillery on Talleyrand Ave. Investigation sanitary nuisance near Ortega; notice given to owners to abate. Investigation reported smallpox; vaccination of entire family. Removal of smallpox case from St. Lukes Hospital to Sand Hills isolation Hospital. Preparation questions for embalmer's examination. Visits, treatment and release of smallpox patients, isolation hospital.
April	So. Jacksonville	Survey of mosquito-breeding conditions.
May	Jacksonville	Routine work office of Assistant to the State Health Officer. Preparation and assistance in examination candidates for District Tuberculosis Nurses. Preparation and assistance in examination of embalmers for license. Differential diagnosis smallpox Edgewood Ave. Inspection of old cemetery on Panama Road with Chief Sanitary Inspection City Board of Health. Visit case smallpox Murray Hill. Investigation case typhoid fever Kings Road. Visit to Sand Hills isolation hospital; treatment and release of patients.
May	DeLand	Installation and supervision public health exhibit. Attendance meeting of Florida State Medical Association.
May	St. Augustine	Installation and supervision public health exhibit.
May	Marietta	Investigation and diagnosis case typhoid fever; removed to Duval County Hospital.
June	Jacksonville	Routine work office of Assistant to the State Health Officer. Investigation typhoid outside city limits. Investigation alleged nuisance outside city limits. Visit case smallpox Murray Hill. Sanitary survey Phoenix Park; investigation typhoid out break.
July	Jacksonville	Routine work office of the Assistant to the State Health Officer; assistance in formulating rules and regulations for medical inspection of schools. Investigation Complaint sanitary nuisance near S. A. L. shops. Investigation complaint sanitary nuisance 23rd Street, Investigation reported typhoid St. Johns Park.
July	Melbourne	Supervision installation of public health exhibit.

August	Hopkins	Interview regarding sanitary conditions at mill.
August	Vero	Investigation case of suspected diphtheria; instructions given as to disinfection of quarters, etc.
September	Jacksonville	Routine work, office of Assistant to the State Health Officer. Preparation school inspection forms. Investigation faulty cesspool, poor drainage, hog pen and open privy Lackawanna Ave. and Everet St; owner notified to correct conditions.
September	Miami	Supervision of educational health exhibit.
September	Ft. Lauderdale	Supervision of educational health exhibit.
September	W. Palm Beach	Supervision of educational health exhibit.
October	Jacksonville	Routine work, office of Assistant to the State Health Officer. Inspection sanitary nuisance Lackawanna Ave. and Everet St; Abatement ordered. Supervision work of appointing medical inspectors of school children. Search for case typhoid reported at 26th and Flynn Ave; failed to locate.
October	Chicago, and Pullman, Ill.	Met officials Pullman Company and inspected educational health exhibit cars of State Board of Health; gave instructions for few slight alterations. Arrangements made with Illinois Central R. R. for transporting to Florida.
November	Jacksonville	Routine work, office of Assistant to the State Health Officer. Installation of exhibit in cars. Purchase of supplies and additional material for cars. Investigation diphtheria situation at Lackawanna, Brentwood and Northeast Springfield schools. Interview with Superintendent of Public Instruction in regard to diphtheria situation in schools. Inspection of Brentwood school; pupils throat swabbed—none suspicious clinically.
November	Chicago, and Pullman, Ill.	Arrangement for transportation of exhibit cars; final inspection of cars. Trip to Jacksonville with exhibit cars.
December	Jacksonville	Routine office work, investigation of several complaints relative to alleged sanitary nuisances in vicinity of Jacksonville, School inspection for determi-

ration of diphtheria carriers, equipment of exhibit train, purchase of material and installation of exhibit.

Respectfully submitted,

C. H. DOBBS,
Assistant to the State Health Officer.

REPORT OF DR. W. P. CRIGLER.

South Central District.

Ocala, Florida, January 1, 1916.

Dr. Joseph Y. Porter,

State Health Officer,

Jacksonville, Fla.

Dear Doctor:—I have the honor to submit the following report of my activities during the year 1915 in the discharge of my duties as Assistant to the State Health officer.

The general health conditions in my district during the year have been good, with some improvement over those of last year. No epidemics of a serious nature prevailed. Diphtheria caused more anxiety among the people than any other disease.

In Apopka and Winter Garden two cases terminated fatally. They, being the first cases in both places to be recognized, caused great alarm among the citizens. I was detailed to take charge of the situation in these places, and by isolation and use of antitoxin no more deaths occurred and the disease was stamped out.

Great value in the prevention and treatment of the disease is found in the cheaper price and easier method of obtaining antitoxin. I refer to the placing of biological products in two places in each county by the State Board of Health. This is greatly appreciated by the general public and is bringing about excellent results.

Smallpox has been less in this district than in former years. No epidemic of a serious nature occurred. The largest outbreak was among the negro crew of a construction train of the A. C. L. R. R. Three cases were discovered among the crew and I was detailed to take charge. I had the car placed on a siding a mile from Sanford. The crew were vaccinated, 18 in all, and the sick were isolated in the

Diphtheria.

Smallpox.

car and placed in the care of a keeper. Only two cases followed in the contacts, these were due to unsuccessful vaccination, one case did not develop a take and the other negro confessed to me that he had rubbed off the vaccine and applied tobacco to kill the virus. This is a good demonstration of the value of vaccination. Two cases of small-pox were carried in from outside the State by winter visitors. One at St. Cloud who came from West Virginia and the other at Lake Alfred, who came from Tennessee. By prompt vaccination of all contacts no other cases followed these.

Pellagra.

The number of cases of pellagra were greatly increased during the year. The development of this disease now seems to be more of an economic question than one of Public Health. Many parts in my district have suffered with hard times, and the people have not been living up to their usual standard. Failure of crops and the general depression of business in the South have forced many to live on less good food than usual. My work in this line has been educational, informing the people of the cause of the disease, and advising a better proteid diet.

Typhoid
Fever.

Typhoid Fever has been of no serious consequence. Only isolated cases occurring.

Scarlet
Fever.

Scarlet Fever was reported from Floral City, but was confined to two families.

Malaria.

Malaria is on the decrease, especially in the towns, due to the better education of the people in regard to the propagation of the disease by the mosquito.

The sanitary condition of the towns in this district is steadily on the improvement. Education along these lines is bringing good results, but is necessarily slow, and must be kept up all the time. Good results are being obtained by the Press Service of the State Board of Health and the Health Notes.

Details
Performed
in 1915.

January 3-5—Fort White—Detailed to investigate the nature of an eruptive disease in a child. Diagnosis Scarlet fever. Consultation with attending physician regarding isolation and treatment.

January 6-9—St. Cloud—Inspection of alleged sanitary nuisance. Abatement.

January 9-31—Ocala—Routine duties. Collection of water for examination at the laboratory from a well at the public school North Ocala. Investigated reported case of smallpox outside the city. Diagnosis, chickenpox. Orders given to discontinue the sale of milk from this place. Inspection of city pound and notice given to the authorities to clean up same.

February 2—Bellevue—Sanitary Inspection.

February 3—Summerfield—Sanitary Inspection.

February 6—Groveland—Investigation at request of citizens, the nature of a suspicious, eruptive disease. Diagnosis chicken-pox.

February 9-18—Inverness—Taking swabs from the throats of the school children to locate the missed and carrier cases of diphtheria among them.

February 21-23—Bushnell—Investigation reported case of cerebrospinal meningitis. Proved upon proper laboratory tests to be typhoid fever of the cerebro spinal type.

February 24-26—Orlando—Inspection of sanitary nuisance in form of an unclean stable. Instructions given to clean the place and keep manure in fly proof bins.

February 26-30—Ocala—Routine Office work. Assisted with the State Board of Health's Exhibit while here.

March 6-16—St. Cloud—Detailed to take charge of case of small-pox. Vaccinated all known contacts, and all others desiring it. Isolated the patient. No other cases followed this one. Case imported from West Virginia.

March 12-13—Floral City—Scarlet Fever, whooping cough. Only one case of scarlet fever was found but numerous cases of whooping cough. Efforts were made to isolate the cases and explain to the parents the serious nature of the disease.

March 28-30—Winter Garden—Investigation of reported cases of small-pox in family 9 miles in the country. Diagnosis, chicken-pox.

April 4-16—Sanford—Detailed to take charge of small-pox among the negro crew of a camp of the A. C. L. R. R. Found 3 cases. Had car placed on a siding a mile from town and cases placed in care of a keeper. Vaccinated the remainder of the crew, 18 in all, and allowed them to return to work.

Their work compelled them to be together, and was able to keep them under surveillance to see if any others developed the disease.

April 13—Winter Park—Investigation of the source of infection in a case of typhoid fever. Traced to carrier case in family. Advised use of typhoid vaccine in remainder of family.

April 25-28—Returned to Sanford—Two cases of smallpox among the contacts exposed to the original cases. These due to unsuccessful vaccination. Isolated in work car and placed in charge of keeper. No other cases followed.

April 29—Lake Alfred—Detailed by wire to investigate smallpox. Found one case in white male who has just arrived from without the State. Vaccinated all the family and those in the town desiring it. No cases followed this one.

April 30—Umatilla—Smallpox in country surrounding the town. The disease had been in this neighborhood for some time, owing to the people being adverse to vaccination. The sheriff of the county had quarantined the families where the disease existed. I promised to release them from quarantine if they would submit to vaccination. I vaccinated 30 and stamped out the epidemic.

May 1-8—Ocala—Routine duties.

May 8-10—Overstreet Junction—Consultation with patient concerning pellagra.

May 18-23—Webster Pellagra Survey—I found in the near vicinity 26 cases in 14 families. All were in whole families. Instructions were given to raise cow peas for use during the winter and increase proteid diet.

May 24—Enterprise Junction—Inspection of water supply

from a pump at the station, and collection of samples to be sent to laboratory. This water was found contaminated and advice given to drill a new well.

May 26-28—Apopka—Detailed by wire to investigate smallpox here. Found one case in negro male. Family vaccinated and house placarded. All in the vicinity who wanted to be vaccinated were accommodated.

May 31—Brooksville—Complaints made by some citizens about the insanitary conditions of a stable here. Instructions given to owner to clean up. Keep manure in fly proof bins or cover with borax. Promised to fulfill recommendations.

June 2-5—Marion County—Investigation of the source of infection of a case of typhoid fever.

June 11-20—Ocala—Routine office work. Called in consultation by local physician to diagnosis of eruptive disease. Diagnosis. Impetigo Contagiosus.

June 20—Ocala—Complaint made by citizens in regard to a negro consumptive. Instructions given concerning the disposal of sputum and care to be taken to prevent spread of disease.

June 27-29—Winter Park—Sanitary Survey of town, and took up with town officials the matter of passing a model vital statistics ordinance.

July 2-5—Dunnellon—Pellagra survey—Found 5 cases. Reported same on data blanks furnished by State Board of Health.

July 7—Ocala—Consultation with District Tuberculosis Nurse

July 5-30—Ocala—Routine duties. Consultation with local physician in case of eruptive disease. Diagnosis Toxic dermatitis.

July 19—Indigent case of diphtheria in negro child. Antitoxin furnished.

July 22—Inspection and abatement of nuisance in shape of a collection of water in street by defective drainage.

August 5—Ocala—Conference with Veterinarian of State Board of Health concerning anthrax in cattle at Marion County Farm.

August 16—Arrendonda—Investigation of reported death of negro child from diphtheria.

August 18—Webster—Investigation of sanitary nuisance in form of a pond in the town limits.

August 19—Taft—Sanitary survey of town and suggestion to Mayor and council in regard to proper disposal of excreta.

August 24-26—Apopka—Diphtheria.

August 28—Arrendonda—Investigation of reported case of diphtheria.

September 1-16—Ocala—Visited owners of fruit stalls, groceries, and places where food to be eaten raw is exposed for sale, and explained the new law concerning the screening of such. Later all complied with the regulation, and built containers of fly-proof screens.

September 17-21—Apopka—Detailed by wire to go and take charge of diphtheria situation. Three cases of the disease occurred within the town in the last month. All cases were widely separated and no direct contact was known. I explained to the citizens that the disease was spread by the missed and carrier cases, and use of precaution against being coughed and sneezed on, and instructed the children to use own articles at school.

September 21-30—Ocala—Routine office duties.

October 1-10—Leave of absence.

October 15-18—Floral City—Investigation of scarlet fever.

October 19-31—Ocala—Routine duties. Investigation of a case

of diphtheria. Placarded house and instruction given to family in regard to isolation of patient.

November 6-10—Williston—Detailed to investigate diphtheria in family four miles in country. Found two cases. Proper isolation and treatment with antitoxin gave excellent results. No other cases.

November 15-17—Ocala—Examined babies in the Better Babies Contest given by the Woman's Club.

November 20—Ocala—Conference with local physician in regard to the communicability of an eruption contracted while bathing in the lakes around Ocala. Found on investigation to be caused by Larva Migrans.

November 28-30—Winter Garden—Diphtheria.

December 9-11—Winter Garden—Detailed to take charge of diphtheria situation. Found two cases, one ending fatally. Talked with school trustees in regard to closing the school. Talked to pupils about the contagion of the disease. Advised them to return to school. No other cases followed these two.

December 24—Oklawaha—Diphtheria. One case Indigent. Distribution of antitoxin to members of family.

December 29—Burbank—Investigation reported case of smallpox. Diagnosis, chicken-pox.

Respectfully submitted,

W. P. CRIGLER,

the

Assistant to State Health Officer.

REPORT OF DR. J. E. TAYLOR

Central District

Gainesville, Fla., January 1st, 1916.

Dr. Joseph Y. Porter,

State Health Officer,

Jacksonville, Fla.

Dear Doctor:

I am attaching hereto my Annual Report for 1915.

DATE	PLACE	NATURE OF DETAIL
Jan. 1-14	Montg'm'ry, Ala	Annual leave of absence.
Jan. 15-16	Starke, Highland and Maxville	Smallpox in camp car of S. A. L. Ry. Vaccination of employees.
Jan. 18	Gainesville.	Conference with city officials and City Board of Health relative to sanitary conditions in Gainesville. Conference with Superintendent of city schools relative to delivering a series of lectures to the high school on personal hygiene.
Jan. 19-28	Monticello	Small pox. Vaccination. Isolation and handling of cases.
Jan. 28-31	Gainesville	Routine office work.
Feb. 1-5	Gainesville	Routine office work.
Feb. 5	Gainesville	Scarlet fever. Isolation.
Feb. 6-8	Gainesville	Routine office work.
Feb. 8	Gainesville	Pulmonary tuberculosis.

Feb. 6-17	Gainesville	Vaccinating school children.
Feb. 18	Gainesville	Lecture to high school on animal parasites.
Feb. 19	Gainesville	Lecture on the method of spread of tuberculosis, typhoid and diphtheria.
Feb. 20	Gainesville	Conference relative to sanitary nuisance at Rochelle.
Feb. 21-28	Gainesville	Routine office work.
Mar. 1-3	Gainesville	Routine office work.
Mar. 3	Rochelle	Sanitary nuisance. Privy. Abatement.
Mar. 5	Gainesville	Address to 20th Century Club.
Mar. 6-25	Gainesville	Acting City Health officer. Consultation eruptive disease.
		Diagnosed chicken pox. Handling two cases diphtheria and one case mumps.
Mar. 25-29	Starke	Sanitary survey.
Mar. 29-31	Gainesville	Routine office work.
Apr. 1-23	Gainesville	Routine office work. Conference with City Board of Health. Inspection of dairies. Bacteriological work for local physicians.
Apr. 23-27	Carbur	Sanitary survey. Recommendations as to construction of privies and handling excreta.
Apr. 28	Newberry	Reported smallpox. Diagnosed chicken pox.
Apr. 29-30	Gainesville	Routine office work.
May 1-15	Gainesville	Routine office work. Survey of part of Gainesville. Conference regarding pellagra.
May 15-23	Panama City, Millville, Early, Overstreet, St. Andrews, Moortown	Investigating pellagra situation.
May 24-31	Gainesville	Handling two cases typhoid. Further work on survey.
Jun. 1	Gainesville	Routine office work.
Jun. 2	Alachua and High Springs	Sanitary nuisance. Stable. Flies. Abatement.
Jun. 3-13	Gainesville	Handling three cases typhoid.
Jun. 15	Day	Inspection of dairy supplying milk to Gainesville market.
Jun. 16-19	Cedar Keys	Conference with Board of Trustees regarding site for new school building.
Jun. 19-25	Gainesville	Routine office work.
Jun. 25	Fairbanks, Waldo, Hampton, Starke	Reported smallpox. No cases seen. Believe the conditions to have been chicken pox.
Jun. 26-28	Cedar Keys	General inspection of sanitary conditions and recommendations to City Council.
Jun. 29-30	Gainesville	Routine office work.
Jul. 1-7	Gainesville	Routine office work. Disinfection after typhoid. Conference with District Tuberculosis Nurse.
Jul. 7 to Sept. 8	Panama City, Millville, Early, Moortown,	

	Farmdale, West Bay, Lynn Haven, South Port, St. Andrews, Overstreet and Cromanton	Pellagra. See report attached hereto.
Sept. 9-11	Gainesville	Routine office work.
Sept. 12-14	Green Cove Springs	Diphtheria. Isolation. Disinfection.
Sept. 14-16	Live Oak and Falmouth	Disinfection after diphtheria.
Sept. 17-30	Gainesville	Routine office work. Handling two cases diphtheria, one case scarlet fever and two cases typhoid. Bacteriological work for local physicians.
Oct. 1-14	Gainesville	Routine office work. Conference with City Council regarding incinerator. Abatement of sanitary nuisance in Gainesville.
		Visited a case of pellagra in Santa Fe section. Reported that pellagra was rife in that section but found only one case.
Oct. 14-16	Cedar Keys	Sanitary nuisances. No abatement.
Oct. -18	Newberry	Endeavoring to ascertain if reports of typhoid were true. Could not verify.
Oct. 19-25	Gainesville	Routine office work. Conference County Board of Education regarding lectures to high schools of the county.
Oct. 25-31	Carbur	Malaria. Special report of this detail is attached.
Nov. 1-2	Gainesville	Routine office work with the exception that a visit was made each week to the different high schools of the entire county and lectures given on health matters. A special report of this school work is attached hereto.
Nov. 12-13	Oldtown and Eugene	Amebic dysentery. Handled in same manner as an outbreak of typhoid. Seventeen cases and seven deaths.
Nov. 13-26	Gainesville	Routine office work and county school work.
Nov. 27-28	Oldtown and Eugene	Further work on dysintery.
Nov. 29-30	Gainesville	Routine office work.
Dec. 1	Waldo	Smallpox. Isolation. Disinfection. Vaccination.
Dec. 1-14	Gainesville	Routine office work and county school work.
Dec. -14	Archer	Diphtheria Laryngeal type. Death in eighteen hours. Immunizing antitoxin to children of family. Disinfection. No spread.
Dec. 15-25	Gainesville	Routine office work and county school work.
Dec. 26-29	Dowling Park	Sanitary nuisance. School privy. Recommendations to Superintendent of education.
Dec. -30	Gainesville	Routine office work.

A more detailed report of certain features of the year's work is given below.

Smallpox.

My first detail on account of smallpox was to Starke and vicinity. Smallpox was reported as existing in a camp car of the S. A. L. Ry. Co. then stationed at Starke. Upon my arrival I found that the patient had been sealed in a box and forwarded to Jacksonville. The remainder of the crew were vaccinated, excepting those presenting good scars. No new cases developed.

My second detail on account of smallpox was to Monticello. This outbreak evidently came from LaMont, Jefferson County, where quite an epidemic occurred in November and December of 1914. Vaccination, isolation and disinfection effectually controlled the situation.

The third and last detail on account of smallpox was to Waldo the latter part of the year. Three cases developed. The usual procedure prevented a spread.

During the year 437 people were vaccinated.

Typhoid
Fever.

Thirteen cases of typhoid were reported to me during the year, located as follows: Gainesville 8, Cedar Keys 2, and Wilcox 3. In the cases occurring in Gainesville, I personally saw that the patients were screened and that bichlorid for disinfecting the excreta was freely used.

In considering typhoid, I want to stress the tremendous importance, in fact necessity if other cases are to be prevented, of personal attention on the part of the health officer to proper disinfection and disposal of all excreta and prevention of any possible access of flies to the patient. To these details is due, in all probability, the prevention of more serious outbreaks from the different foci mentioned above.

Typhoid vaccination as a method of control is gradually winning favor, however, the people at large are not yet sufficiently educated to demand it in case of exposure.

Sporadic cases of diphtheria have occurred from time to time in Gainesville, but have been promptly controlled by rigid isolation and disinfection.

In addition to the cases in Gainesville, I have been detailed to Green Cove Springs, Falmouth and Archer in connection with this disease. Three cases were found in Green Cove Springs, no active case in Falmouth and one in Archer. No difficulty was experienced in controlling either of these outbreaks by the means above referred to.

Before leaving the subject of diphtheria, I wish to convey to the State Health Officer the appreciation, both professional and lay, of the people of Florida for the establishment of the distributing stations for antitoxin. These stations bring within easy reach of every citizen these most useful agents of treatment, and will, in my opinion, save many lives by enabling the attending physician to promptly obtain therapeutically efficient products.

Only three cases of scarlet fever have come under my observation this year, all occurring in Gainesville. The disease was exceedingly mild in type, in fact, diagnosis was almost impossible until desquamation began. Control was by strict isolation and disinfection.

Scarlet
Fever.

I have seen only twelve cases of pellagra this year aside from the cases referred to in the attached report of detail to Panama City, St. Andrews, Millville, etc. I do not know how to account for the small number of pellagrins in this immediate section of the state unless the financial depression of the past two years has been more pronounced in the western sections. I am inclined to think that this is true, because lumber and naval stores form the chief products of those sections while in central and south Florida industries are varied.

Pellagra.

Basing my opinion on a careful study of 162 cases of this disease, I have reached the conclusion that pellagra is not in any manner communicable, and is entirely due to a lack of proteids in the ration, or an insufficient diversification of proteids. I have found that supplying a "shot-gun prescription" as to proteids with symptomatic treatment, promptly effects a cure of the acute attack, at any rate, and if continued I have no doubt will bring about a permanent cure. It should be borne in mind in considering pellagra that many people in good circumstances eat a limited diet, either from habit or because they have an idea that certain foods do not agree with them.

I am attaching below report of detail referred to above.

Pellagra—Bay and Calhoun Counties.

Detail of July 5—Sept. 7.

The topography of this section of Florida is practically the same as the other Gulf coast sections, i. e., sandy, poorly drained coastal plain with little under growth. There

General
Consideration.

are a few swamps and lakes. Bayous and creeks are plentiful. In the western section of Calhoun and the eastern section of Bay are extensive marshes of the settlements to be mentioned later, only Early and Overstreet are in this marshy section, the other settlements and towns being nearer the pass and are comparatively high and well drained. It should be remembered that Moortown or Bay Harbor, Millville, Panama City, St. Andrews and West Bay Mill form practically one town extending for some eight miles along the bay shore. Lynn Haven is eight miles further west, and South Port is just across an arm of the bay from Lynn Haven.

Lumber and naval stores are the chief industries on the bay. Fishing furnishes employment to about five per cent. of the people, and possibly another five per cent. are engaged in farming, however, farming and fishing are usually carried on together. The summer tourist is quite an item in Panama City and St. Andrews, but, usually, the people who cater to the tourists are engaged in some other occupation as well. To be more specific as to the occupations and business enterprises of the different localities: Early, naval stores and some farming; Overstreet, naval stores and a brick yard; Farmdale, trucking and small farms; Moortown, lumber (the mill is owned and operated by the Lackawanna Railroad); Millville, saw mill run without any effort to make the commissary supply a balanced ration; Panama City, fishing, tourists and clearing house for the entire Bay county; St. Andrews, tourists and summer colonists; West Bay Mill, lumber; Lynn Haven, northern people, largely civil war pensioners; South Port, a defunct saw mill town.

Population
and number
of cases.

A rough estimate of the present population of these towns and the well defined cases of pellagra in each would give Early 50 people with 4 cases, Overstreet and vicinity 75 to 100 people with 22 cases, Farmdale 100 people with 3 cases, Moortown 600 people with four quiescent cases, Millville 1000 to 1200 people with 50 cases, Panama City 1500 people with 5 cases, St. Andrews 1000 people with none, West Bay Mill 300 people with 3 cases, Lynn Haven 700 people with 7 cases (all among the fishermen), South Port 300 people with 15 cases.

Fully ninety per cent of the people of these towns secure their drinking water from wells ranging in depth from

six to twenty feet. These wells are usually bored and the water lifted by pumps. The remaining ten per cent. secure water from deeper wells. No surface or rain water is used for domestic purposes.

Food and
Water.

The food is that obtained from small country stores and the different commissaries, and is largely composed of salt fat meat, flour, corn meal, grits, syrup, dried vegetables and canned goods. Fresh meats can be obtained at Moortown, Millville, Panama City, St. Andrews and Lynn Haven. Very few cows or chickens. To be more specific as to fresh meats: Cannot be obtained at Early or Overstreet except during the winter. No chickens or cows in ninety per cent. of the families. Approximately fifty per cent. have small vegetable gardens. The mill commissary at Moortown has cold storage and also operates a 200-acre farm on which different stuffs are raised. There is one small meat market at Millville several small stores and the commissary. Fresh meats can usually be obtained at Panama City and St. Andrews. West Bay Mill is in reach of St. Andrews. Lynn Haven has a limited supply of fresh meats. South Port has no market and few cows and chickens.

A comparative study of the localities in which pellagra is found will show that the house fly is the only insect common to all. In some sections biting flies will be found, in other mosquitoes, in others yellow flies, deer flies, gnats, etc. This leads me to believe that insects do not play any role in the propagation of pellagra unless the house fly can be convicted.

Insects.

Of the cases I had under observation, approximately 30 per cent were white women, 40 per cent white men, and 10 per cent negroes. In order that the negro race may not be given credit for an immunity it does not possess, it is necessary to remember that in this section of the State the white race largely predominates.

Summary
of Case
Histories.

Hookworm infection complicated about fifty per cent. of the cases, and was found in adults almost as often as in children. No other condition was found complicated with pellagra in a sufficient number of cases to warrant consideration.

Approximately 75 per cent of these cases developed the first symptoms from December of last year until June of this year. Contrary to my previous information, there was no well marked exacerbation in the spring, the disease

apparently running a subacute course, with occasional flare-ups from the time of onset. A good many cases gave a history of having noticed the first symptoms as far back as three, four and five years, and in one case, seven years.

With four exceptions, all of the cases belonged to the laboring class. Two cases were subsequently found to be vegetarians and one a dyspeptic. The houses were not screened, few had vegetable gardens, cows or chickens. Usually an abundance of patent medicine bottles.

The predominating symptoms found were a rash that appeared in all grades of color from a mere discoloration to a hue identical with that of a severe burn where the epidermis has peeled off, sore mouth, red tongue and fauces, pain in the region of the gall bladder, alternate diarrhoea and constipation, burning feet and dizziness. Three patients complained of failing sight. The appetite was not altered. A lowered resistance to other disease was not noticed.

The only treatment in the way of medicine used was Fowler's Solution in five to eight drops doses as a tonic, bismuth subnitrate for the diarrhoea, and a mixture of equal parts ichthyol compound and glycerin for the rash. A diet and instruction slip was given each patient, and every possible effort made to stress the importance of a well balanced diet, especially as to proteids.

The results were most gratifying, every case showing a remarkable improvement almost immediately after beginning treatment, and, so far as can be ascertained at this time, progressing on to complete recovery. It may be that the disease will appear again during the late winter and spring, however, the fact remains that, for the time being at any rate, ninety-five per cent. are well. There were only four or five cases presenting enough symptoms to enable one to make a diagnosis when I left. The average duration of symptoms after beginning treatment was fifteen days to three weeks.

Amebic dysentery was reported from Old Town and Eugene in November. Diagnosis was confirmed. Seventeen cases, with seven deaths, occurred. The young and aged were attacked in approximately equal numbers.

Control of the outbreak was by similar measures used to control an outbreak of typhoid fever.

Amebic
Dysentery.

The treatment used was emetin, acresta, and quinine colon irrigations.

I was unable to trace the focus from which the infection was brought into these communities, but I am convinced that the spreading of the disease was due to flies.

I was detailed once in 1915 to assist in handling an outbreak of malaria, and give below copy of the report of that detail.

Malaria

Gainesville, Fla., November 3rd, 1915.

Dr. Joseph Y. Porter,
State Health Officer,
Jacksonville, Fla.

Dear Doctor:—

In Re Malaria—Carbur.

In compliance with your telegram of the 25th ultimo, I again went to Carbur and have most carefully studied the situation there.

As you are aware, Carbur is a logging camp situated in a swamp. It is miles in any direction to anything approaching high ground, and immediately surrounding the village this swamp is covered with water practically the entire time. At no place is the ground water more than three feet from the surface. This, in connection with the fact that the entire swamp area is covered with an almost impenetrable growth, makes either drainage or oil a practical impossibility.

At the conference held in Jacksonville on the 1st, the only suggestions I could make were screening of the houses, clearing the swamp as far back from the village as possible, and better, or rather, more, medical attention, as there has been only one medical attendant and it is impossible for him to give as close attention to conditions as is demanded. I was advised by the general manager that these suggestions would be carried out.

Yours very truly,

J. E. TAYLOR, M. D.,
Assistant to the State Health Officer.

As can be seen from this report, a scientific method of controlling malaria in this particular section is impossible; however, if all the people would live in screened houses, I am positive the disease would be almost entirely eliminated.

In other parts of my district malaria is almost a rarity, and I hope to persuade the mill management to see that adequate screens are provided for the houses in Carbur from this time on. Carbur is an example of the loss a company is liable to suffer by not consulting sanitary experts before establishing of camps or the beginning of towns.

In connection with malaria, I wish to respectfully suggest that at the next meeting of the State Board of Health a rule be passed requiring each case of malaria and typhoid to be effectually screened.

Lectures.

During the year addresses on health matters have been made to the 20th Century Club, the High School and classes at the University of Florida.

Beginning in October, definite course of lectures on health and disease has been given to the high schools of Alachua county. So far, these lectures have been on anatomy, physiology, food and food values and bacteriology. Beginning in January, I shall take up for detailed consideration tuberculosis, typhoid fever, diphtheria, scarlet fever, malaria, and hook worm infection, and endeavor to teach the whys and wherefores of each, methods of control, etc. The bearing of air, water, and foods on disease will be considered last.

The course contemplates twenty-five lectures to each high school.

It is too early to determine the value of this work as yet, but I am convinced already that it will prove of inestimable benefit. The pupils are greatly interested, and the fact that one youngster gravely informed me that bacteria were the worst form of vegetable life shows a grasp of the essentials, if not the finer shades.

I have in round numbers, six-hundred pupils, ranging in age from thirteen to nineteen.

Respectfully submitted,

J. E. TAYLOR, M. D.

Assistant to the State Health Officer.

REPORT OF DR. M. E. HECK

East Coast District.

St. Augustine, Florida, January 1st, 1916.

Dr. Joseph Y. Porter,
State Health Officer,
Jacksonville, Florida.

Dear Doctor:—Following the usual custom of previous years I submit herewith my report as Assistant to the State Health Officer in the East Coast Sanitary District for the year 1915.

January.

In January I was engaged in no special detail work, owing to excellent health condition in my district, so I devoted the time to my office in St. Augustine, and to local investigations. In the latter connection I discovered and

photographed many insanitary privies and stables in St. Augustine.

Dairies were also visited and photographs of some of them were taken. In addition to visiting the dairies I gave my oft-repeated suggestions for improvements.

On request of Dr. Hanson I collected samples of water from the ice plant, and from the "Fountain of Youth" in St. Augustine. I delivered these samples personally to Dr. Hanson January 15, 1915. Both were reported not contaminated.

During February my most important detail was to Titusville for the purpose of investigating the source of alleged contamination of the city water supply. I was in Titusville February 9th and 10th, and in addition to investigating the water supply I photographed several horse stables which were being kept in such a condition as to be a sanitary nuisance.

February.

On February 10th I also went to Enterprise Junction in order to determine the probable source of colon bacillus contamination of the Florida East Coast R. R. pump water at that station. In returning to headquarters I stopped off for a short visit at New Smyrna, calling on the local physicians.

The greater portion of February I remained at my headquarters in St. Augustine attending to office routine and correspondence. I also revisited two of the dairies in New Augustine.

March was also an extremely healthful month, and being free to devote my time to the dairy situation in St. Augustine, I collected samples of milk which I personally carried to the Jacksonville laboratory. All of these samples showed the presence of colon bacilli, though only one or two samples showed extremely high bacterial counts at this time. However, I was unable to greatly interest the city authorities in this matter.

March.

On March 18th, I was ordered to Daytona to investigate an alleged sanitary nuisance on the extreme edge of town. The condition complained of was a fat rendering plant. Meat bones, and fat scraps from hotels and boarding houses were boiled in vats, the grease pressed out, and the residue or cracklings piled up in the building. This business caused considerable odor, but could only be a sanitary nuisance in that it made a good breeding place for flies.

People will put up with all kinds of sanitary nuisances in the heart of town, and then go out of their way to complain against a few bad odors in some lonely section near the edge of town.

While not specially engaged I confined myself to office routine in St. Augustine.

April.

April 1st to 4th, inclusive, I remained at St. Augustine, occupying my time in attending to office routine and official correspondence.

April 6th to 26th, I was at Fort Pierce, having been called there to terminate a diphtheria epidemic at Walton, twelve miles south of Fort Pierce. During my stay at Fort Pierce one case of smallpox was reported to me just outside the town limits, a young white man. I vaccinated in all 231 people, whites and colored combined.

While on this detail I had a great deal of extra time at my disposal after the diphtheria epidemic at Walton was about over, and I was waiting for a few "positive" throats to clear up. This extra time I devoted to investigations of both the milk and the water supplies of the city.

The water showed colon bacillus contamination and the milk from the two dairies showed not only colon bacillus and high bacterial count, but evidence of having been diluted considerably.

At a called meeting of the city council I recommended the passage of a complete Public Health Ordinance for Fort Pierce. This was agreed upon, and I then assisted the city attorney to draw up this ordinance.

While at Fort Pierce I received instructions to stop off at a number of incorporated towns on my return to St. Augustine and endeavor to have them pass the Model Ordinance for Vital Statistics. I visited Melbourne April 23rd; The Model Ordinance is now in operation there; Cocoa, April 24th, Model Ordinance promised, but it has not yet been adopted; Titusville, April 24th, Model Ordinance now in operation there; New Smyrna, April 25th, Model Ordinance passed its first reading October, 1915; Ormond, April 25th, Model Ordinance now in operation. However, I shall leave a full report on Vital Statistics to the gentlemen in charge of that work.

In visiting the above mentioned towns I also recommend the passage of a Public Health Ordinance similar to the one adopted by Fort Pierce.

April 27th to 30th, I devoted to office routine and official correspondence, and a few microscopic examinations.

The greater portion of this month was spent in St. Augustine. While at headquarters I attended to routine office work, carried on a publicity campaign in advertising the arrival of the State Board of Health exhibit. May 17th to 22nd. I assisted in putting up and conducting the exhibit. It was visited by over seventeen hundred people.

May 25th. I called on Mayor A. W. Corbett, and on May 26th, I addressed the city council of St. Augustine relative to an ordinance aimed to regulate the dairies, and various and sundry other sanitary matters.

The only absences from St. Augustine were: May 8th to carry samples of milk to the Jacksonville laboratory; May 10th, Ocean City investigating alleged smallpox cases at that place, and May 12th 13th and 14th, when I was attending the meeting of the State Medical Association at Deland. At this meeting I read a paper on: "A Plea for Better Health Organizations in the Smaller Municipalities of Florida."

In addition to keeping office hours and attending to official correspondence while in St. Augustine, I also collected samples of milk from all the local dairies. These samples were collected both on June 1st and 15th, and shipped to Jacksonville. All samples had colon Bacilli present and two showed that these two dealers were diluting their milk. One of these dairymen has since gone out of business.

June 3rd to 5th I was detailed to New Smyrna for the purpose of taking samples of water from several artesian wells so as to help the city authorities in their selection of a good well for the city supply.

On the night of June 10th I was again in New Smyrna; this time to address a public meeting in the interests of a bond issue for a new Public School. The following night, June 11th. I addressed a similar meeting for the same purpose, at Seabreeze.

June 28th. I left headquarters for the new city of Okeechobee to look into the matter of alleged cases of Typhoid Fever at that town. No cases of Typhoid had occurred, but as I was in Okeechobee all day June 29th. I addressed a joint meeting that night of the new city council and the local board of trade, urging the passage of the

Model Ordinance and also a good Public Health Ordinance similar to the one passed earlier by Fort Pierce.

June 30th, I went to Fort Pierce, across country by automobile, remaining a day in Fort Pierce in order to learn if their new ordinance was being enforced. On inspection of several grocery stores and restaurants I found they were not strictly enforcing the ordinance. I spoke to the proprietors about their places of business and also brought the matter to the attention of the town authorities.

Was in Fort Pierce at the close of the month.

Practically the entire month I was in St. Augustine.

July.

July 1st, after a conference with the Mayor, City Health Officer, and City Attorney, of Fort Pierce, relative to the enforcement of the New Health Ordinance, I returned to St. Augustine.

July 9th and 10th, I was in New Smyrna in connection with certain objections to the laying of certain pipes of the New Sewerage System. I was also consulted in regard to certain proposed changes in the plans of the proposed new Public School building at New Smyrna.

August.

Absent from the State on vacation of one month, granted me by the State Health Officer.

September.

Returned from vacation August 31st, and spent the first six days of September attending to office work and back correspondence. September 6th, I started out on a general trip of inspection, stopping at practically all of the incorporated towns in the lower half of my district.

On this trip I visited West Palm Beach, Delray, Lake Worth, Stuart, Fort Pierce, Okeechobee, Fellsmere, Melbourne, Eau Gallie, Cocoa, Titusville, New Smyrna, DeLand, and Daytona. Of all these towns Cocoa is the only one which has not adopted the Model Ordinance for Vital Statistics.

On this trip I urged enforcement of the recent State laws relating to Public Health, and in order to better accomplish this I recommended that various cities adopt one good Public Health Ordinance covering all the Statutes and rules and regulations of the State Board of Health.

The last five days of September were spent in Jacksonville.

October.

October 1st to 24th, inclusive, I was stationed at headquarters engaged in office work, and local sanitary improvements

October 25th to 31st, inclusive, was engaged in detection and isolation of "Diphtheria Carriers" in teachers and pupils of the New Smyrna Public Schools. In all there were three clinical cases of Diphtheria and forty "Carriers" during the entire period I was in New Smyrna. The Schools were not closed one day and as each case was discovered the "carrier" was sent home, given printed instructions as to gargling the throat and proper isolation. Another list of printed instructions on "How to Avoid Diphtheria" were distributed to all the school children.

Both the city and county authorities heartily co-operated with me in my efforts. The Model Ordinance for Vital Statistics passed its first reading, as did also a good Public Health Ordinance, providing for a City Health Officer, and a sanitary code for his guidance.

Valuable assistance was rendered me by Dr. C. W. Chowning who was appointed temporary health officer of New Smyrna pending the adoption of the new ordinance.

November 1st found me still on duty at New Smyrna, but our "carrier" cases were clearing up rapidly.

November 4th, in answer to telegram from the State Health Officer, I left for Eau Gallie to investigate a "diphtheria scare." On my arrival there I found that there had been one case, diagnosed clinically, and that the schools had already been closed. I first issued instructions to re-open the schools. Next morning with the assistance of Dr. W. J. Creel, swabs were taken of the throats of about 135 school children. One carrier case, and several streptococcic sore throats were discovered. Dr. Creel attended to the isolation of the carrier case, as I had to return to New Smyrna. No new cases of diphtheria developed at Eau Gallie to my knowledge.

November.

I left Eau Gallie on the morning of November 6th, and on my arrival at New Smyrna Dr. Chowning had already received negative reports on a number of carrier cases we had isolated. This left such a small number that I decided to leave for St. Augustine, which I did, arriving there at 6:30 p. m. the same day.

I was in St. Augustine from November 6th to 16th, when I left for Hawks Park to examine a family reported by Dr. Davis Foster as being possible "typhoid carriers." They proved, however, to be negative to the Widal test.

November 17th to 23rd, was spent in Titusville mak-

ing a careful investigation of both the city water supply, and of the Florida East Coast R. R. water supply.

November 24th to 28th, was in St. Augustine.

November 29th and 30th, was detailed to Espanola to investigate, and if possible determine the origin of two cases of typhoid fever occurring at that place.

December.

December 1st, returned from Espanola, and remained in St. Augustine until the 9th on which date I left for Titusville.

December 10th and 11th, I was busy making an examination of the throats of school children in Titusville for the purpose of determining the presence of diphtheria carriers. I was assisted in this work by Dr. Macey, County Superintendent of Public Instruction, and by Doctors Burks, Spell and Thomas of Titusville. I did not await a report from the Laboratory but requested the city council to appoint a local physician as Health Officer to look after the situation. This was done and Dr. B. A. Burks was appointed, who attended to the isolation of all the carrier cases.

On my return from Titusville I stopped off between trains at Ormond on December 11th, and made an investigation in connection with several cases of Typhoid Fever among a family of colored people. I also called on some school children who had been reported as having an unknown skin disease. This did not appear to be anything serious.

From December 12th to the 29th, inclusive, I was stationed in St. Augustine.

From 29th, I left for DeLand to take charge of several cases of alleged smallpox. December 30th and 31st, was still on this detail.

There were five cases among colored people, one out in the country and four in town. The cases were as follows: 3 male (colored), and two female (colored).

In commenting on Health conditions in my district I have few statistics upon which to base my belief that these conditions have been very good, and what statistics I have are not claimed to be accurate. No serious epidemics of any of the communicable diseases have been reported during the year, and where a few cases have broken out they have been mild in type and few in number. Serious illness and deaths from infectious diseases have been so rare that the various cities have been very slow to enforce Health Ord-

nances. They fail to appreciate the value of "sanitary preparedness."

While Jacksonville is nominally in my district it would be unfair to that city to class it with my other cities, as there is not another place along the entire East Coast District where as much is being done for preservation of the Public Health. It is the only city where Vital Statistics and Morbidity reports are recorded with any degree of accuracy.

At the time of my last inspection trip through my district, September 1915, I found many towns far behind in sanitary matters and only two; West Palm Beach and DeLand, were enforcing the screen law passed by the last legislature. The towns I considered most insanitary at that time were Fort Pierce, Titusville, and New Smyrna. Since then New Smyrna and Fort Pierce have made considerable progress, but Titusville is unfortunate in that a prominent town official maintains a horse stable in the center of town, which is a sanitary nuisance. This has a bad moral effect upon the whole community, for people will not respect laws which are continually being violated by the municipal officials themselves.

In the larger towns such as Daytona, Palatka, and St. Augustine conditions should be far ahead of the smaller places. They are in a way because there are more houses connected up with proper sewerage, but in one of these three cities is the screening law being enforced; neither is it required that the open surface privies in the unsewered portions of the town be made flyproof according to statute.

Since the inauguration of the Commission-Manager plan of City Government, much has been expected in the way of sanitary improvement in St. Augustine. However, after a period of over six months of "watchful waiting" little has been done to make health conditions one bit better than they had been before under the old Mayor and Council system of Government. Vital Statistics are not being accurately reported, and I know of no records being kept of communicable diseases.

I mention some of the larger towns in my district and point out some of their shortcomings; in fact, I know of no town in my entire territory where a consistent effort is being made to enforce the rules and regulations, and the statutes of the State Board of Health.

In order to get an idea as to the degree of interest manifested in Public Health work in my district I sent out, under date of December 23rd, 1915, a circular letter requesting information on local health matters in each of the forty-one cities and incorporated towns in my district (Jacksonville excepted) up to the present date, January 1st, I have received reports from but eleven.

Of the thirty municipalities from which I received no reply I would not recommend any for their healthfulness. If their Vital Statistics records prove them to be healthy communities, they can make that claim, but I certainly would not recommend as healthful, a community where the city authorities show so little interest in public health affairs as to ignore a letter of inquiry such as I sent.

Discouraging as public health work sometimes is, especially when there is very little sickness, I felt that conditions in the East Coast Sanitary District are better than they were a year ago.

During the past year I have received notice of sixteen cases of smallpox, ten white and six colored, as against over a hundred, principally colored, at DeLand and vicinity alone, not to mention other communities, during 1914.

There have been many cases of mild sore throat during the fall months which proved to be diphtheria, and there were a large number of diphtheria "carriers."

However, there were but three deaths from diphtheria in my district (not including Jacksonville), which have come to my notice.

Fort Pierce, Okeechobee, and New Smyrna have recently passed good public health ordinances. Eau Gallie and Titusville have been considering such an ordinance and have probably adopted it by now.

In the matter of health legislation for cities I have recommended that one long ordinance be adopted, which shall cover, by sections, all phases of public health work necessary for that particular community. I have recommended the same type of ordinance for all towns in my district, such ordinance to include the rules, regulations, and statutes of the State Board of Health, and provide for a local Health Officer, and for sanitary inspection by the marshal or a special inspector. Dairy regulation should also be included in this ordinance.

In closing my report I respectfully offer the following suggestions:

1. That the State Board of Health consider the matter of dairy regulation by the Board. This would pave the way for the passage later of a state law regulating dairies, and providing funds for adequate dairy inspection and control.

2. That whenever a case of any of the communicable diseases is reported to the executive office, or a diagnosis of such a disease is made by any of the laborators of the State Board of Health, notice of such disease shall be sent to the assistant to the State Health Officer in whose district the disease occurs.

3. That Assistants, and other representatives of the State Board of Health be authorized to cause the arrest of violators of Statutes relating to Public Health, where city authorities fail to pass or enforce ordinance covering such statutes. Could not a city, as a corporate body, be held liable for such violations of law?

4. That the rules governing communicable diseases be revised, especially with reference to diphtheria. I believe isolation in cases of diphtheria should be more rigid; the taking of antitoxin by an individual may prevent the development of symptoms, but will not prevent that individual from being a "carrier", and spread the infection. Provision should be made for isolating so called "carriers."

The laws relating to Public Health added to the Statutes by the last legislature have been a great stride forward. They are slowly but gradually being enforced.

The State Board of Health exhibit train now ready for its first trip is a splendid thing, and I am sure it will do more towards educating the public than all the public health literature published.

All my relations with the State Health Officer and my various associates have been most pleasant, and I wish to express here my appreciation of the many courtesies extended to me during the past years.

Respectfully submitted,

MAURICE E. HECK, M. D.,

Assistant to the State Health Officer.

REPORT OF DR. W. A. CLAXTON.

West Central District.

Tallahassee, Fla., January 1, 1916.

Dr. Joseph Y. Porter,

State Health Officer,

Jacksonville, Fla.

Dear Doctor:

I beg to submit herewith a report of my activities during the year 1915. The Tallahassee laboratory has now been in operation for a year, and during that time 3282 specimens have been received for examination. This number while being, perhaps, a good showing for a new laboratory in a district of this population, could easily be increased if the physicians would avail themselves of its services for the diagnosis of those conditions in which laboratory aid is of benefit. The use of a state or municipal laboratory for assisting in the diagnosis of diseases is to a certain extent controlled by education of the public, and the physician, to appreciate this aid; and is also, influenced by habit.

It is not the incompetent or poorly trained physician who calls on the laboratory to make a diagnosis, as the most successful practitioners use the laboratory most, yet, this is not always the case as many successful and well-read men make their diagnosis from the clinical manifestations in the patient. With these it is a matter of habit, and although a laboratory is not infallible, yet, in many instances a diagnosis between post-partum infection and malaria or Vincent's angina and diphtheria may be made in a few minutes by a bacteriologist, where the physician, who relies on the clinical means at his disposal will have to wait some days before he is sure of the trouble with which he is dealing.

The laboratory has been called on during the year to make an unusual number of examinations of throat swabs in the search for diphtheria carriers, notably in DeFuniak Springs, Monticello and Chaires. The routine examination of school children seems at present the only method of controlling diphtheria, and while it involves considerable time and labor, it seems well worth while.

In Chaires, for example, one case of diphtheria was found in November, a few days later an examination was made of the school children, and four carriers found. These

were isolated until their throats were free from diphtheria bacilli, and since then no active case has developed.

In treating the throats of carriers a seven and one-half per cent Aqueous solution of lactic acid has been used as a spray, and seems to free the throats more quickly than anything else, in most instances in two or three days, although some cases require a week.

There seems to have been a considerable amount of typhoid, thirty-nine cases in Tallahassee, eleven in Quincy and nineteen in Chattahoochee, besides one or two cases in other localities. Data on all these cases is not available, but practically all the cases in the Tallahassee district were in houses where lack of screens, absence of sanitary privies and other insanitary conditions prevailed.

During July and August twelve cases of para typhoid were diagnosed in Tallahassee, and two in River Junction.

No cases of malaria was diagnosed in the laboratory until April. During the summer 22 cases of Aestivo Autumnal malaria were found against 9 cases of the Tertian variety. Practically all the cases of malaria were from rural homes where precautions against the infection were not taken.

Two cases of Texas fever were diagnosed from smears from the blood of cattle and one or two cases were diagnosed clinically where the blood smears did not confirm the diagnosis. The Azur 11-Eosin stain was used in this work, and gives more satisfactory smears than Methylene Blue.

Blood from three cases of anthrax revealed the bacilli, the diagnosis being confirmed by cultural and animal inoculations. The anthrax and Texas fever work was done with the aid of Dr. DeMilly, Assistant to the Veterinarian of the Board.

As Assistant to the State Health Officer, several towns have been visited through request of residents or physicians, where unsanitary conditions prevailed, or when the presence of some infection made an investigation advisable. A general survey of the district was not attempted as the laboratory work would not allow an absence for the time requisite for this work. However, when a town was visited it was the rule to look into conditions and offer advice when necessary. In this connection it was noted that many municipalities were without local health officers,

Typhoid.

Malaria.

Texas Fever.

Anthrax.

or when these officials had been appointed there were no ordinances outlining their duties and giving them authority to act in this capacity. This is a great hindrance and is not only responsible for many unsanitary conditions, but at times is responsible for epidemics and deaths from communicable diseases. Where funds are not available for a whole time health officer, a practitioner can usually be induced to accept the position for a nominal salary, and this furnishes someone to whom unsanitary conditions and the presence of communicable diseases may be reported. It would be better, however, for three or four municipalities to join and employ a whole time health officer who could divide his time amongst the towns employing him.

Regarding the general health conditions of the district, the fact that the State Board of Health has not been called to suppress epidemics, may be taken as evidence that there was no remarkable increase in this class of diseases in those towns. The unusual number of diphtheria specimens diagnosed as positive is accounted for by the fact that most of these are in "carriers," and it is encouraging to note that when a case of diphtheria is found, that the State Board of Health is usually called to investigate and prevent the spread of the disease. From this, it is to be presumed that the public will soon demand more protection from maladies, such as, typhoid, malaria, tuberculosis, dengue, and other controllable diseases.

In some communities vaccination is sought and its benefits realized. In others both white and colored entertain the idea that vaccination will cause the arm to rot off, and that other dread results will ensue. These delusions can only be controlled by education, and I think that the "health" train will be a great factor in disseminating information which will dispell these misconceptions.

Smallpox.

Few cases of smallpox have been reported from this district, and in those reported vaccination, where permitted, and instructions as to the care and danger of contagion have been the rule.

Dengue.

Five or six cases of dengue were diagnosed in Tallahassee, most of the individuals having previously been in Pensacola, which seems to be the focus of the infection. In each case precautions were taken to isolate the patient so that mosquitoes could not transmit the disease.

During my visits to various localities it has been my

rule to inquire of the physicians as to the prevalence of pellagra, and in almost every instance the answer has been "there is lots of it around here." Whether this is due to an increase in the number of cases or to a more ready recognition of the condition, I am not prepared to state.

Pellagra.

It is also noticeable that more sufferers from this disease come to the Board of Health for advice, and we are greatly indebted to Goldberger for his research along the line of treatment, as through his findings we can offer some definite chance of recovery to those unfortunates, where, heretofore, we were almost helpless.

Besides the routine work of the laboratory the following specific details were undertaken. In this tabulation the numerous interviews and solicitations for advice incident to a branch office of the Board of Health are not given in detail. Suffice it to say that almost every day inquiries were made concerning some branch of public health work.

DATE	PLACE	COUNTY	NATURE OF DETAIL
Jan. 2	Tallahassee	Leon	Visited case of laryngeal diphtheria with attending physician.
Jan. 2	Tallahassee	Leon	Visited case of smallpox in colored child with attending physician. Vaccinated other members of households. Left instructions.
Jan. 26 28	Marianna	Jackson	Investigated nuisance near public school, made rough survey of conditions intown; recommendations.
Feb. 12-14	Marianna	Jackson	Visited case of smallpox eight miles south of Marianna. Vaccinated other members of household, left instructions.
Feb. 15	Tallahassee	Leon	Visited case of smallpox near Florida Agricultural and Mechanical College with attending physician. Left instructions.
Feb. 21	Tallahassee	Leon	Visited case of smallpox at Florida Agricultural and Mechanical College with attending physician. Vaccinated contacts and left instructions.
Feb. 22	Tallahassee	Leon	Inspected car of sugar from New Orleans and supervised unloading in search for plague rodents.
Mar. 7	Bradfordville	Leon	Investigated case of alleged smallpox, diagnosis chickenpox.

Mar. 24	Miccosukee Rd.	Leon	Investigated case alleged smallpox, diagnosis chickenpox, vaccinated rest of household and others on plantation.
Apr. 30	Tallahassee	Leon	Investigated case of diphtheria in boarding house, took cultures from all patrons and servants (40) found three carriers.
May 13	Tallahassee	Leon	Delivered address to Woman's Club on Prevention of Disease.
May 14	Ocklocknee	Leon	Visited case smallpox, left instructions.
May 17-19	Wewahitchka	Calhoun	Investigated prevalence of pellagra in this vicinity; found 19 cases in radius of 3 miles.
May 20	Marianna	Jackson	Investigated prevalence of pellagra in this district.
Jun. 1	Tallahassee	Leon	Investigated case Texas fever with Dr. DeMilly.
Jun. 7-9	Bonifay	Holmes	Investigated nuisance of city ditch and pond, made rough sanitary survey of town. Investigated case typhoid four miles from Bonifay also pellagra in vicinity.
July 1-31			Leave of absence.
Aug. 2	Tallahassee	Leon	Investigated case anthrax, eight miles from Tallahassee with Dr. DeMilly.
Aug. 5	Tallahassee	Leon	Framed ordinances for city governing bacterial and chemical content of milk and contagious diseases.
Aug. 28-30	Monticello	Jefferson	Investigated prevalence of diphtheria at Monticello and surrounding district, sought out carriers and recommended measures for their control.
Sept. 15-16	Chattahoochee	Gadsden	Detailed to examine case of skin disease thought to be actinomycosis. Laboratory findings negative, case afterwards diagnosed by skin specialist as scrofuloderma.
Oct. 6-8	Port St. Joe	Calhoun	Investigated sanitary conditions of town.
Oct. 11-13	Monticello	Jefferson	Complete sanitary survey; recommendations.
Oct. 25-26	Monticello	Jefferson	Investigated diphtheria, examination of school children and other exposures, two hundred specimens taken. Met with City Council, recommendations.
Oct. 29-30	Galliver	Santa Rosa	Investigated diphtheria; recommendations.

Nov. 5	Chaires	Leon	Investigated diphtheria, swabs from school children, instructions.
Dec. 1-3	Olustee	Baker	Investigation smallpox, vaccinated contacts, instructions.
Dec. 22	Tallahassee	Leon	Mallein test for glanders on horse.
Dec. 30	Bradfordville	Leon	Visited case diphtheria with attending physician, took swabs from rest of family, left instructions.

In submitting this report, I want here to thank the physicians of the district, for the courtesies extended and for the assistance rendered me in my work.

Respectfully submitted,

W. A. CLAXTON,
Bacteriologist and Assistant to the State Health Officer.

REPORT OF DR. RAYMOND C. TURCK.

Surgeon in Charge of the Work Under the "Crippled Children" Act.

Jacksonville, Fla., Jan. 1, 1916.

Dr. Joseph Y. Porter,
State Health Officer,
Jacksonville, Florida.

Dear Doctor:—In accordance with your instructions, I beg to submit the following report of the surgical and orthopedic work done under the direction of the State Board of Health during the year 1915.

Thirty-nine cases were handled during the year as follows:

Remaining under treatment from 1914	10
Admitted for treatment during 1915	25
Examined, not admitted	4
Total	39

There were thirty-six white and three colored children.

Discharged cured during 1915	10
Discharged improved	5
Discharged not improved	3
Under observation or office treatment January 1, 1915	6

In hospital January 1, 1916.....	11
Not admitted	4
Total	39

The following pathologic conditions were presented:

Poliomyelitis deformity and paralysis.....	6
Spastic Paralysis	5
(Hemiplegia 1; Diplegia 3; Paraplegia 1)	
Tuberculosis of hip.....	3
Tuberculosis of spine (Pott's Disease).....	2
Tuberculosis of ilium.....	1
Osteomyelitis	4
(Femur 1; Tibia 1; Humerus 2)	
Talipes Equinovarus	11
Talipes Equinus	2
Curvature of spine.....	4
Bow legs	2
Simple Fracture	2

A large number of applications for the admission of children in need of orthopedic treatment, or letters regarding such cases, have been received during the year. Because we do not possess adequate facilities for gymnastic, muscle training, re-educational, and other similar measures of a non-operative nature, all patients who did not appear, by their histories or descriptions, to be amenable to reasonably prompt operative relief were refused.

I desire to again most strongly recommend that provision be made, either by the erection and maintenance of an especially equipped orthopedic ward in connection with a general hospital, or by a separate state institution, for the care and treatment of the many Florida children who can not be cured by purely surgical measures, and for the great number of orthopedic patients who need vocational training, development and re-education after operative correction of their major deformities. In this connection I beg to point out that the Legislature of 1911 appropriated \$20,000.00 to be used for that purpose, and that in my 1913 report, I included a tentative plan for an orthopedic ward, which could be erected and equipped for the amount designated.

With the generally accepted economic value of a healthy man, at \$5,000.00 as a basis, the conversion of four children from helpless, hopeless, crippled dependents, into self-sustaining, useful, producing citizens would repay the State for the initial cost of such a building, while the commonwealth's profits would soon run into high figures.

It is a curious fact that financial appeals are always more moving than the humanitarian; it is apparently an easy matter to secure a legislative appropriation for hog cholera serum, but exceedingly difficult to stir even a casual interest in unhappy, suffering children; the hog concerns the pocketbook—it is an immediate tangible asset—the crippled child, to the unthinking, is a liability, but it should be borne in mind that aside from the inestimable higher gain, the ultimate economic value of one child converted from dependency to useful citizenship is far beyond that of many, many hogs.

I would recommend an institution for the treatment and training of cripples something like that maintained by the State of Minnesota for such purpose.

We need manual training for the boys; over forty occupations are available and are adaptable to the individual capabilities of the children; arts and handicrafts, particularly the sewing crafts can be taught the girls, and in addition the children should have some scholastic training. During their one, two, three or four years in hospital attention should be given the mind as well as the body and the occupation. Except in cases of idiocy and in certain types of paralysis, crippled children are invariably bright and anxious to learn if given the opportunity; given an equal chance, by reason of their earnest desire, their application and concentration upon the work at hand, they usually excel children with sound bodies who think only of play.

Considering the actual work done during the past year, the results appear to be satisfactory. As may be noted from the consolidated report, a number have been returned home cured, and all now under treatment are progressing favorably. There have been no deaths and no failures so far as the operative work is concerned. Every operation has been successful and we have only failed to accomplish all that we might have done because we lack the necessary equipment.

My associate, Dr. Will Buffalow, has been most assiduous and conscientious in assisting me with the operative work, and in the after care of these children. I am also indebted for valuable services to Drs. J. D. Love and Wm. E. Ross of the Medical Children's Service, to Drs. W. S. Manning and N. M. Heggie of the Eye, Ear, Nose and Throat

Service, to Drs. R. H. McGinnis and C. R. Wilcox of the Medical Service at St. Luke's Hospital.

Dr. L. W. Cunningham has taken the X-rays, and has been of great assistance in his interpretation of the plates.

My thanks are also extended to Dr. G. E. Henson for various blood and other examinations.

The nurses and interns at St. Luke's have always shown the greatest interest in the children and have rendered efficient service as have the nurses at Brewster Hospital.

This report would be incomplete without mentioning the great pleasure afforded, and the many happy hours given the children by Mrs. Thomas P. Denham and Mr. F. P. Conrog through the outdoor play ground equipment provided by them.

In conclusion I want to again express my appreciation of the courtesy, the helpfulness, and the sincere interest of the State Health Officer.

Respectfully submitted,

RAYMOND C. TURK, M. D., F. A. C. S.

Assistant to the State Health Officer.



Figure 1.—O. D. Tuberculosis of spine. Under treatment on Bradford Frame.



Figure 1.—O. D. Tuberculosis of spine. Under treatment on Bradford Frame.



Figure 2.—C. W. Neglected club feet (Talipes Equinovarus)



Figure 3.—C. W. In casts after corrective operation on bones and tendons.



Figure 2.—C. W. Neglected club feet (Talipes Equinovarus)



Figure 3.—C. W. In casts after corrective operation on bones and tendons.



Figure 4.—K. K. Club feet (Tallipes Varus).



Figure 5.—K. K. In casts.



Figure 6.—K. K. Showing results after treatment three months in plaster casts. No operation was done. This child is still under treatment.



Figure 4.—K. K. Club feet (Tadipes Varus).



Figure 5.—K. K. In casts.



Figure 6.—K. K. Showing results after treatment three months in plaster casts. No operation was done. This child is still under treatment.



Figure 7.—L. J. Paralysis of left leg and foot, result of infantile paralysis.

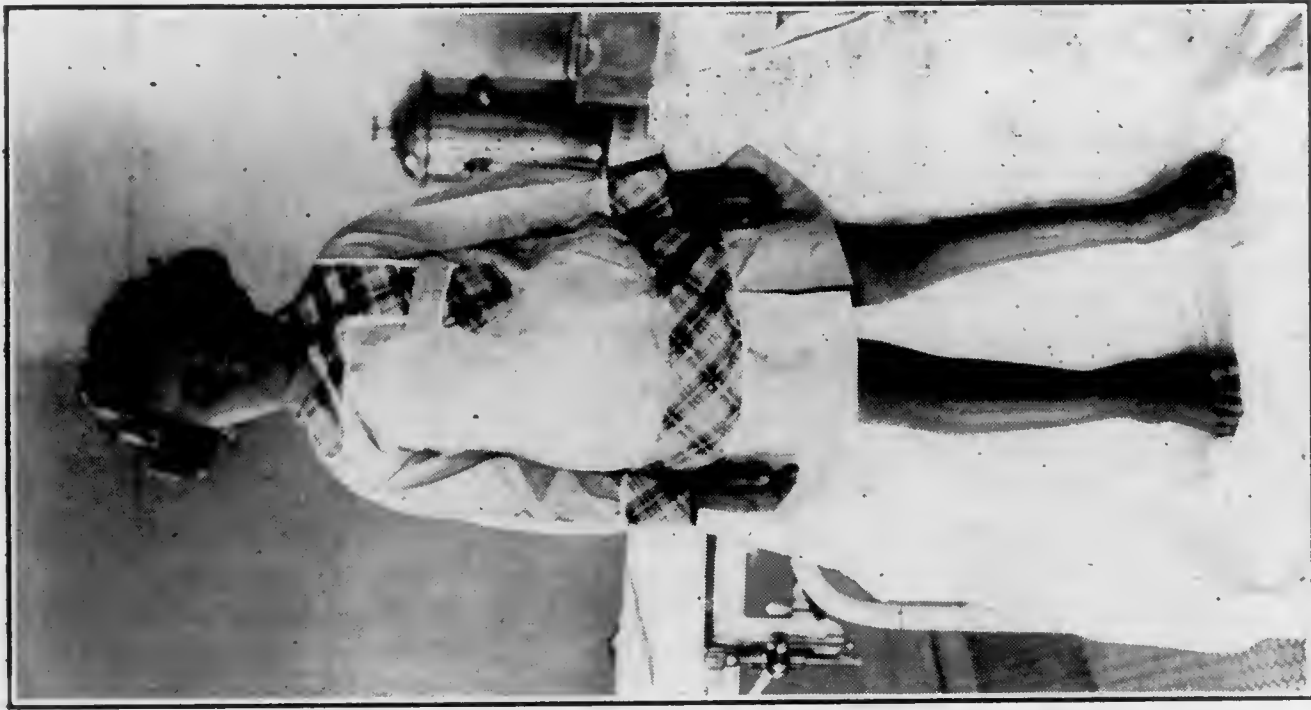


Figure 8.—L. J. After transplantation of sound muscle tendons into paralyzed muscles.

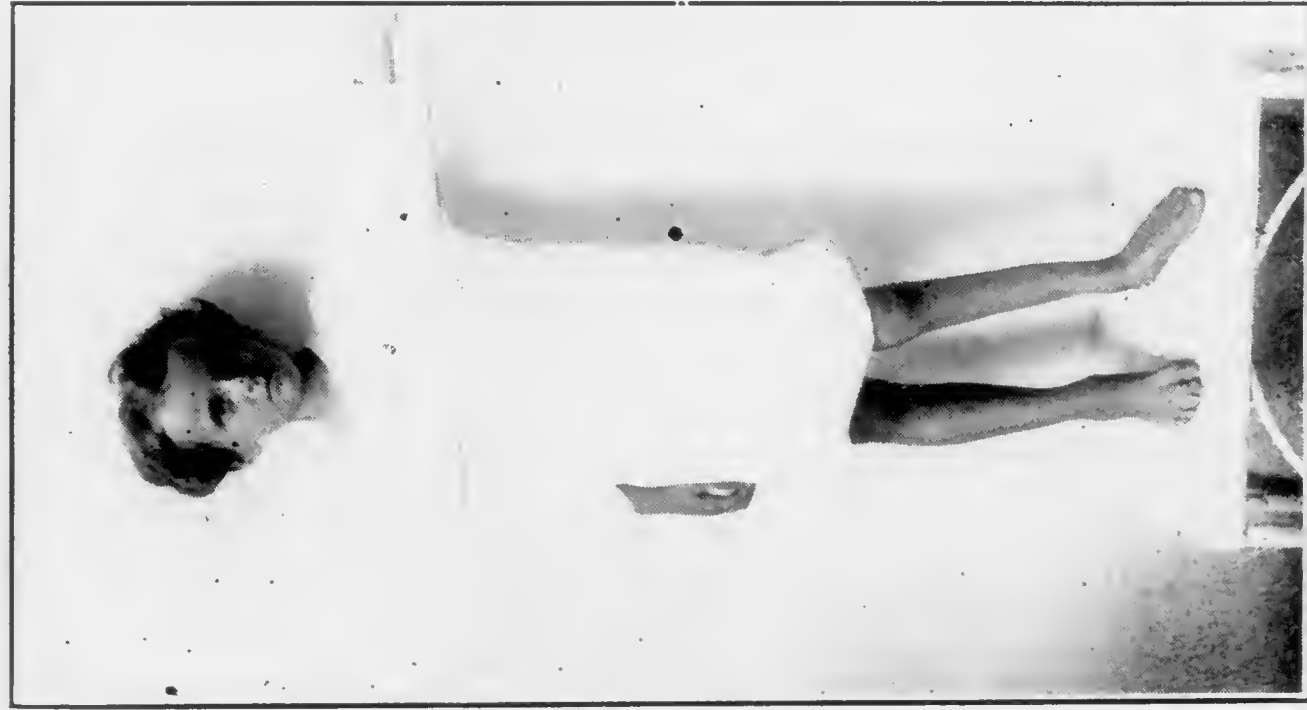


Figure 6. L. J. Paralysis of left leg and foot, result of infantile paralysis.



Figure 8. L. J. After transplantation of sound muscle tendons into paralyzed muscles.



Figure 9.—R. F. Contracture deformity following infantile paralysis.

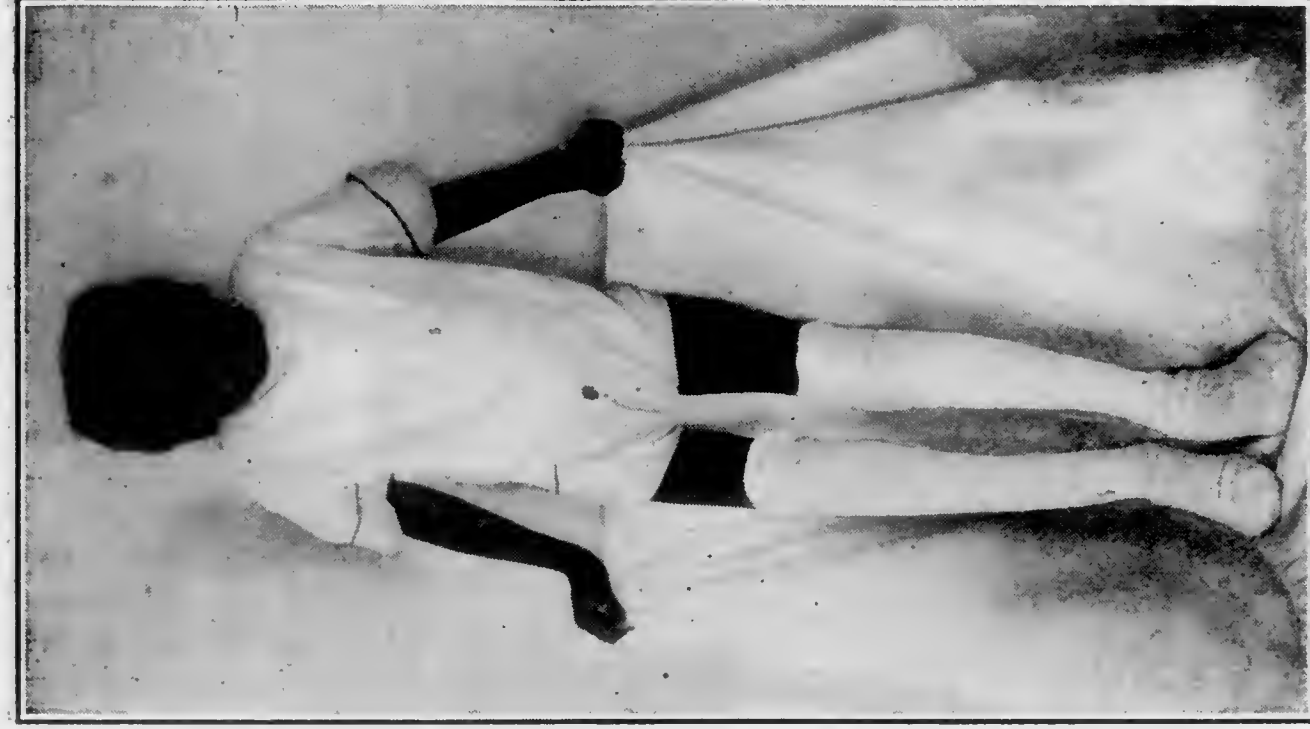


Figure 10.—R. F. After corrective operations on bones and tendons of right foot and tendons and muscles controlling hip and knee joints.



Figure 9.—R. F. Contracture deformity following infantile paralysis.

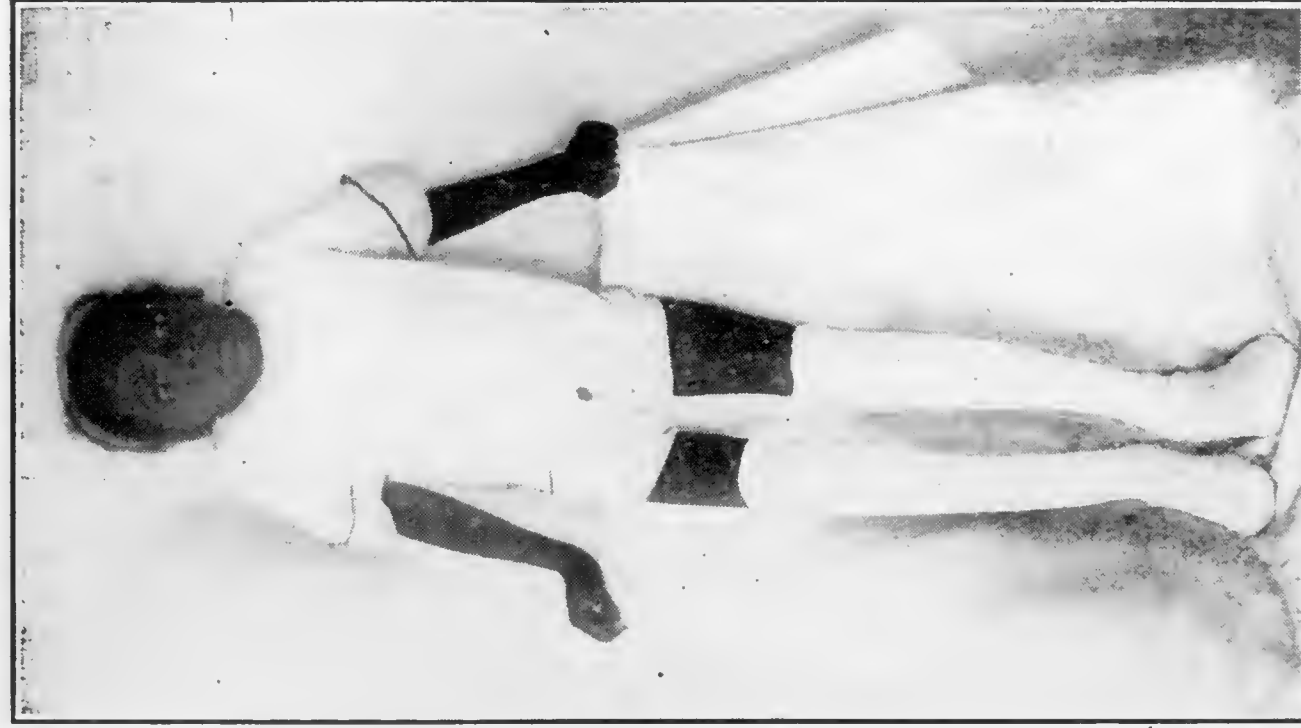


Figure 10.—R. F. After corrective operations on bones and tendons of right foot and tendons and muscles controlling hip and knee joints.



Figure 11.—L. B. Results of infantile paralysis. Deformity and practically total paralysis of both feet. Contracted knees and hips—characteristic arms. Never had walked.



Figure 12.—L. B. Position taken in walking after correction and strengthening of feet, and six months of massage, muscle training and exercise.



Figure 11.—L. B. Results of infantile paralysis. Deformity and practically total paralysis of both feet. Contracted knees and hips—characteristic arms. Never had walked.



Figure 12.—L. B. Position taken in walking after correction and strengthening of feet, and six months of massage, muscle training and exercise.

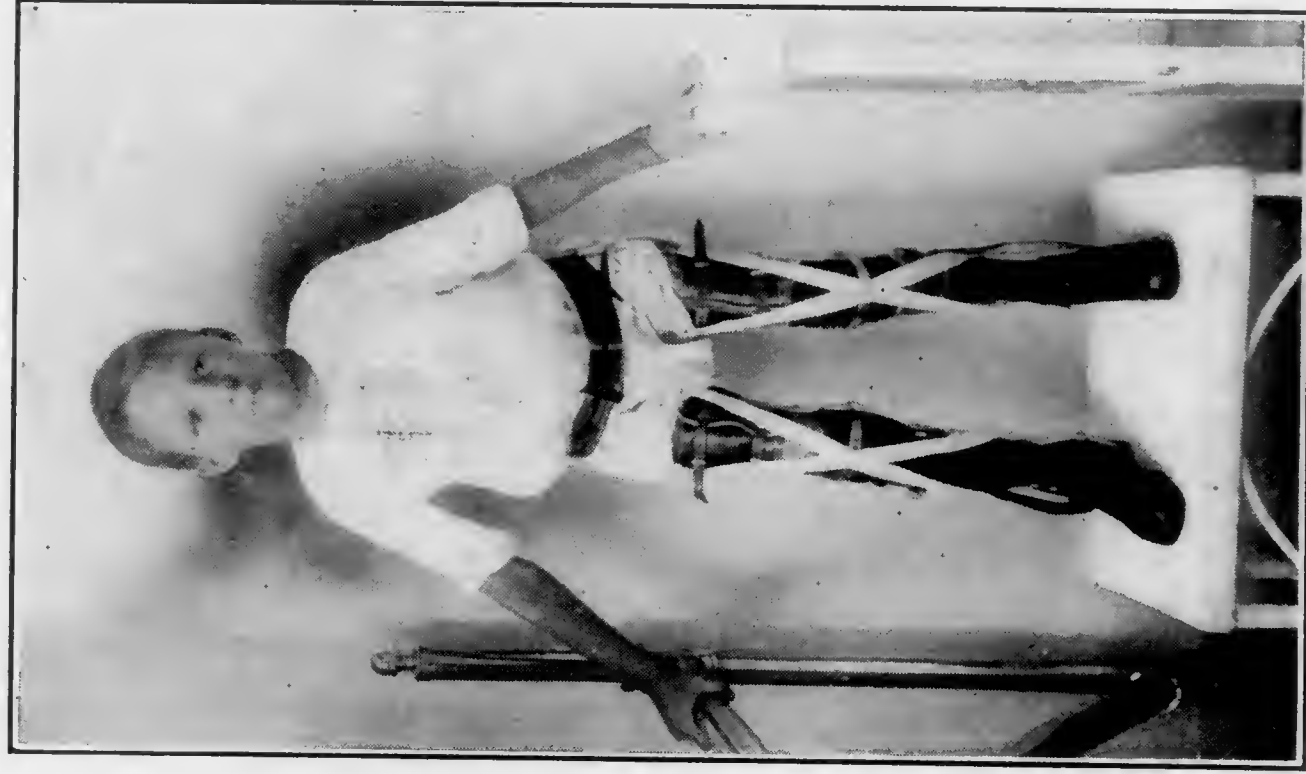


Figure 13.—L. B. In braces after corrective operations on muscles about ankles, knees and hips.



Figure 14.—L. B. Condition when discharged—able to stand alone—walking well with crutches.

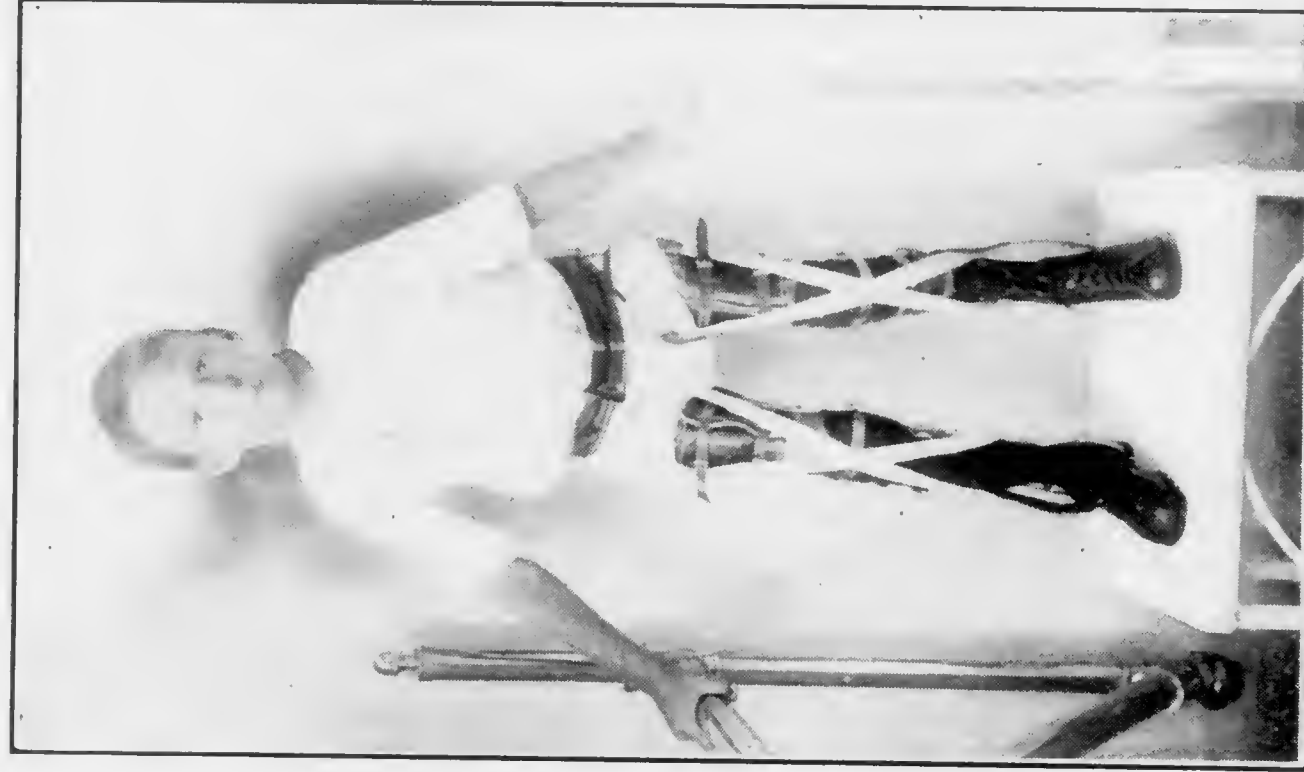


Figure 13.—L. B. In braces after corrective operations on muscles about ankles, knees and hips.

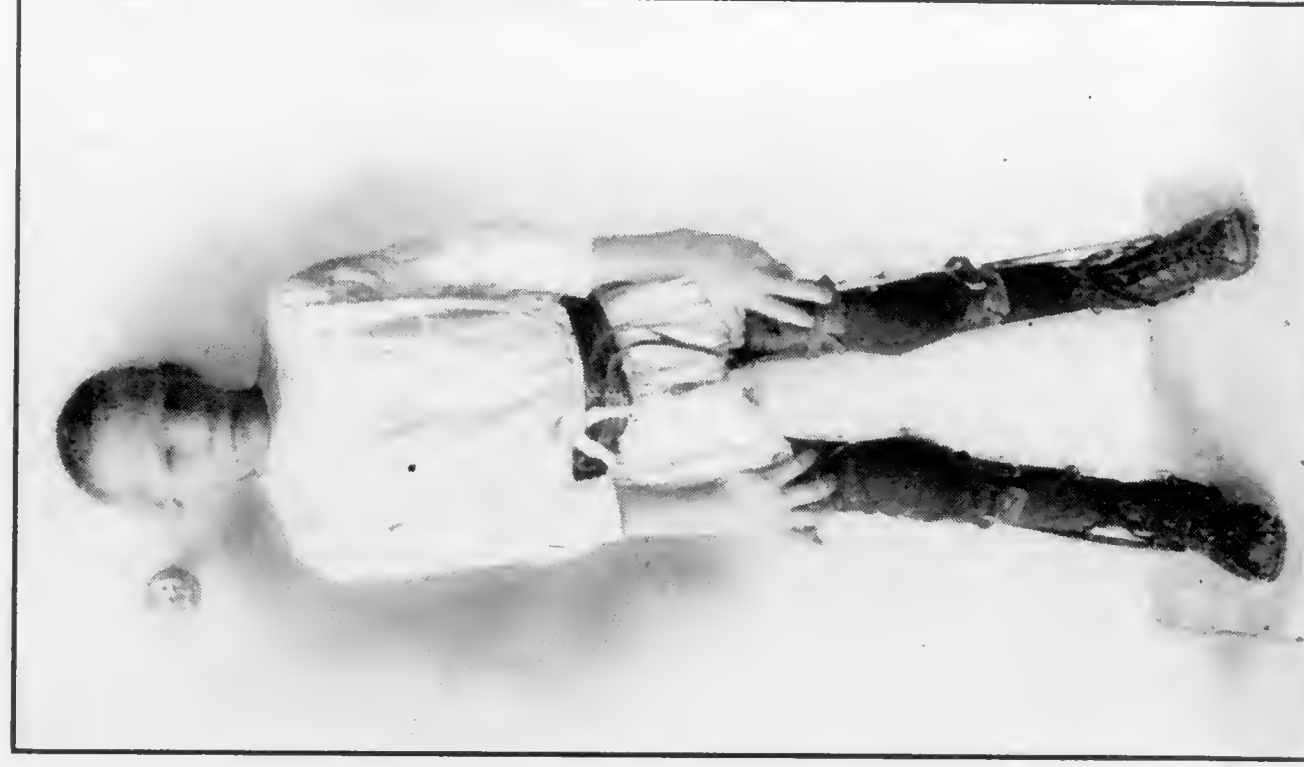


Figure 14.—L. B. Condition when discharged—able to stand alone—walking well with crutches.



Figure 15.—R. G. Obstinate type of club feet—(Talipes Equino Varus).



Figure 16. R. G. In casts after operations on bones and tendons.



Figure 17.—R. G. Final result.



Figure 15.—R. G. Obstinate type of club feet (Talipes Equino Varus).



Figure 16. R. G. In casts after operations on bones and tendons.



Figure 17.—R. G. Final result.

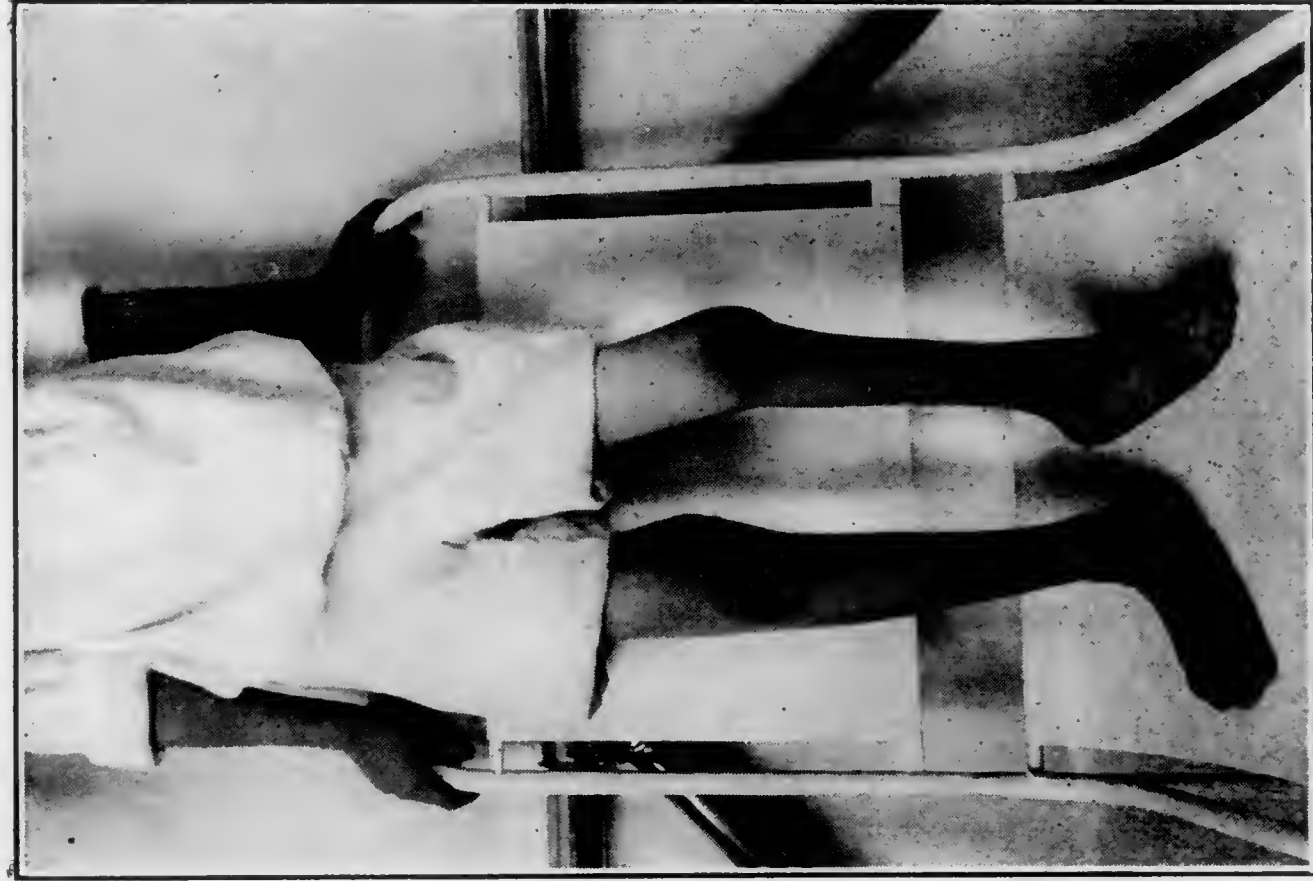


Figure 18.—A. H. Infantile paralysis and deformity. Talipes valgus right foot, inverted left foot, contracture deformity of left ankle and knee with partial dislocation of latter.

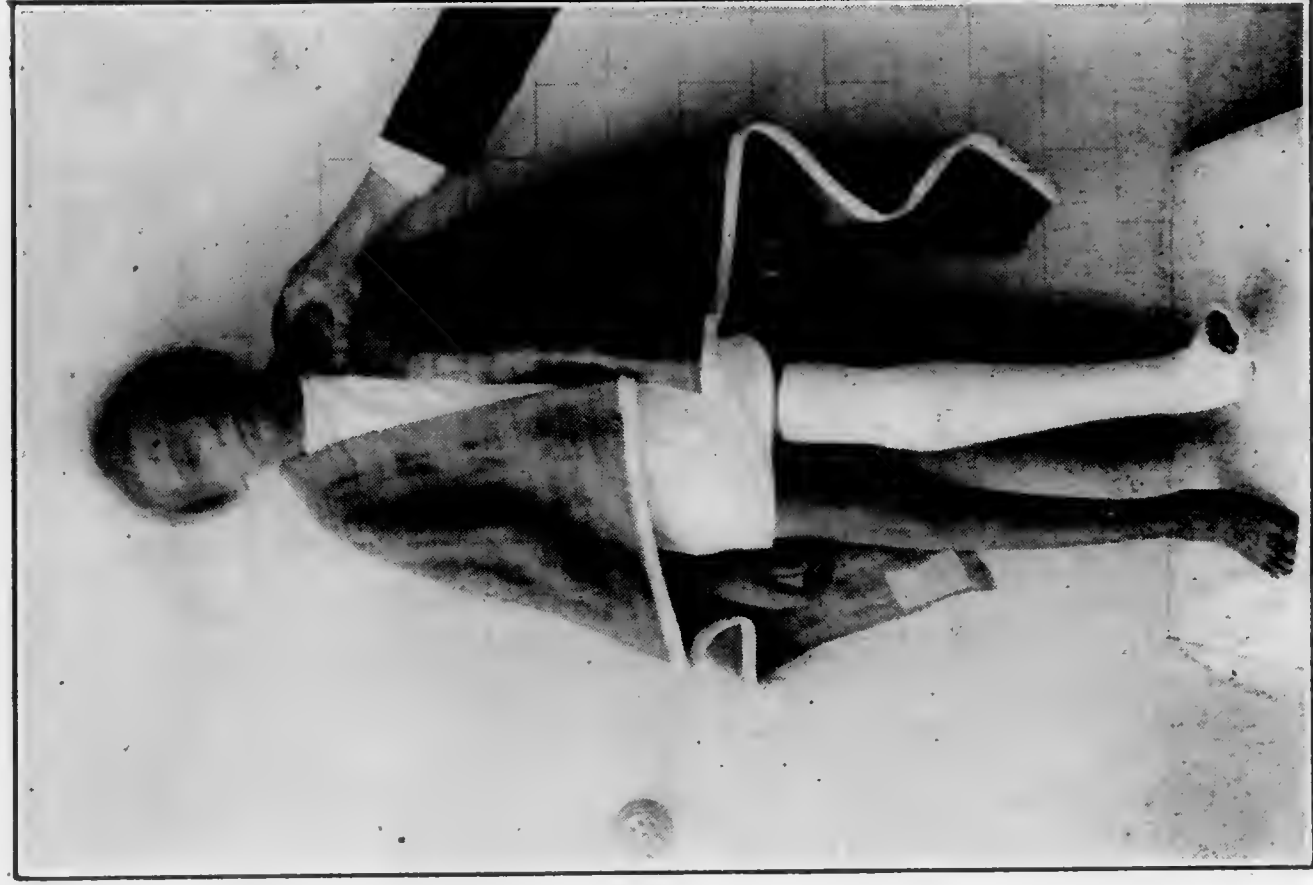


Figure 19.—A. H. After tendon transplantations right foot and leg. Left limb in cast after straightening and stiffening knee joint and corrective work on bones and tendons of foot and ankle.

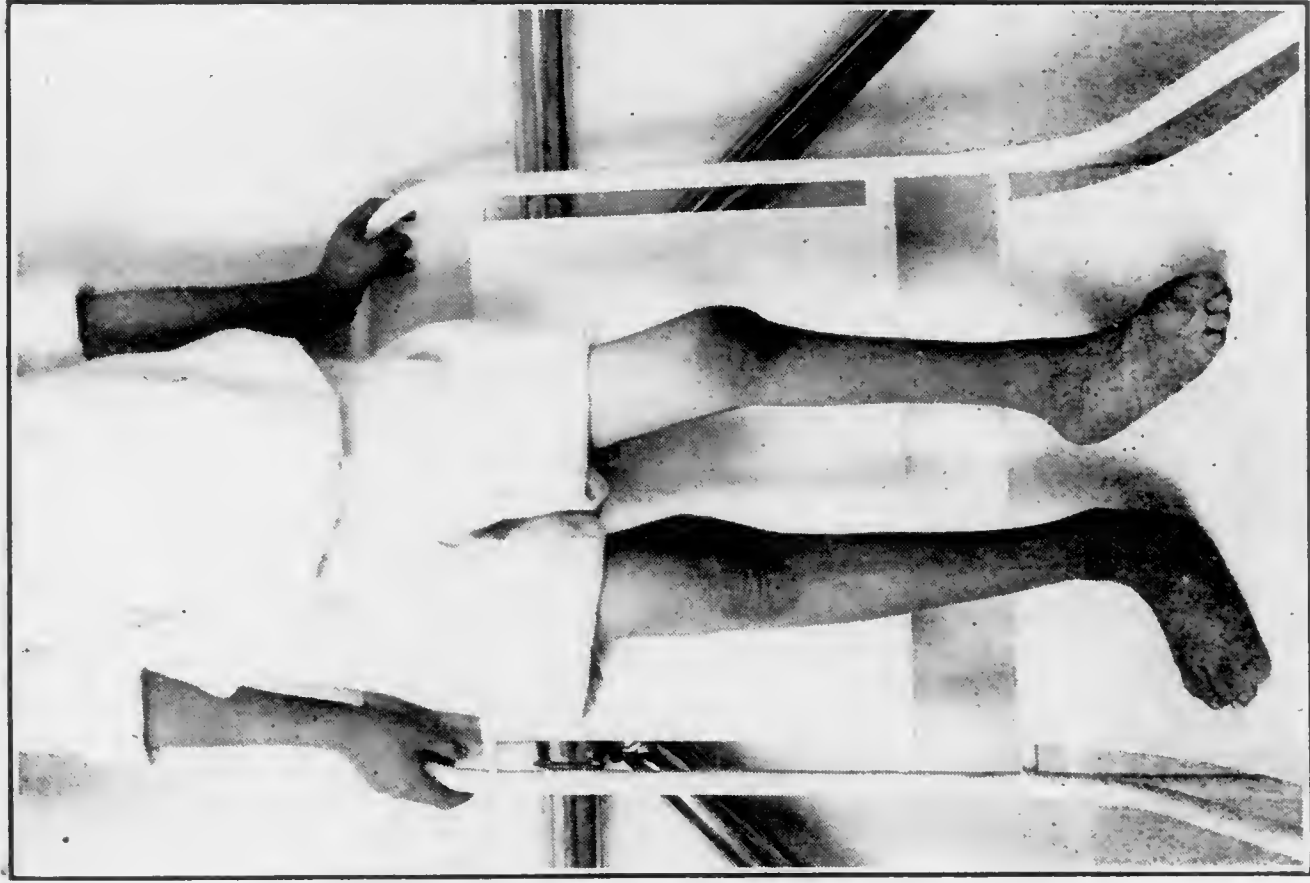


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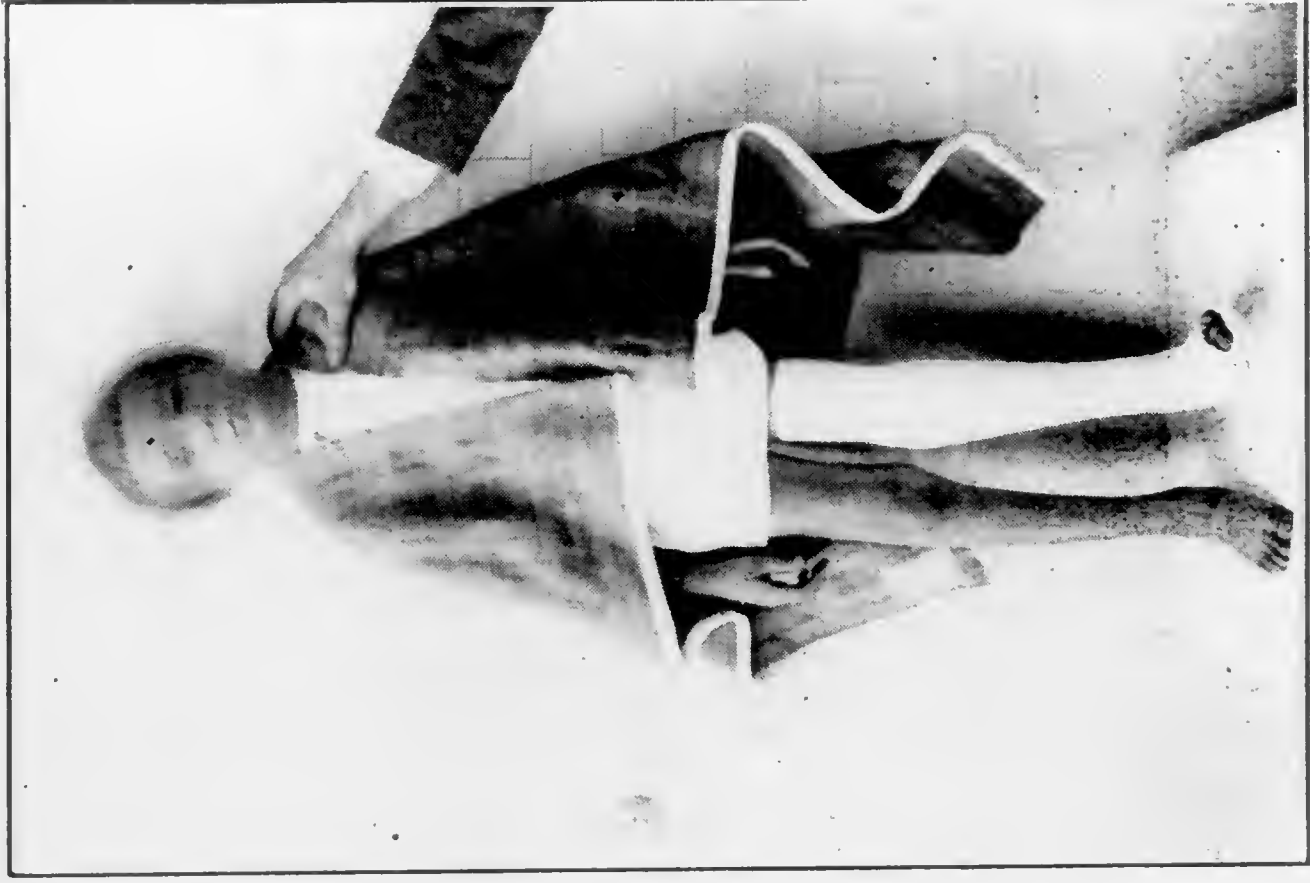


Figure 19.—A. H. After tendon transplantations right foot and leg. Left limb in cast after straightening and stiffening knee joint and corrective work on bones and tendons of foot and ankle.



Figure 20.—H. M. Necrosis of bones of pelvis with dis-
charging sinuses—contracture deformity at knee and hip.



Figure 21.—H. M. In casts six months after removal of
practically entire left side of pelvis (ilium and part of isch-
ium) and part of spine (sacrum). The areas from which
the diseased bones were removed are filling in with new bone.



FIGURE 20. H. M. Necrosis of bones of pelvis with dis-
charging sinuses, contracture deformity at knee and hip.



FIGURE 21. H. M. In casts six months after removal of
practically entire left side of pelvis (ilium and part of isch-
ium) and part of spine (sacrum). The areas from which
the diseased bones were removed are filling in with new bone.



Figure 22.—G. K. Obstinate type of club foot (Talipes equino-varus).

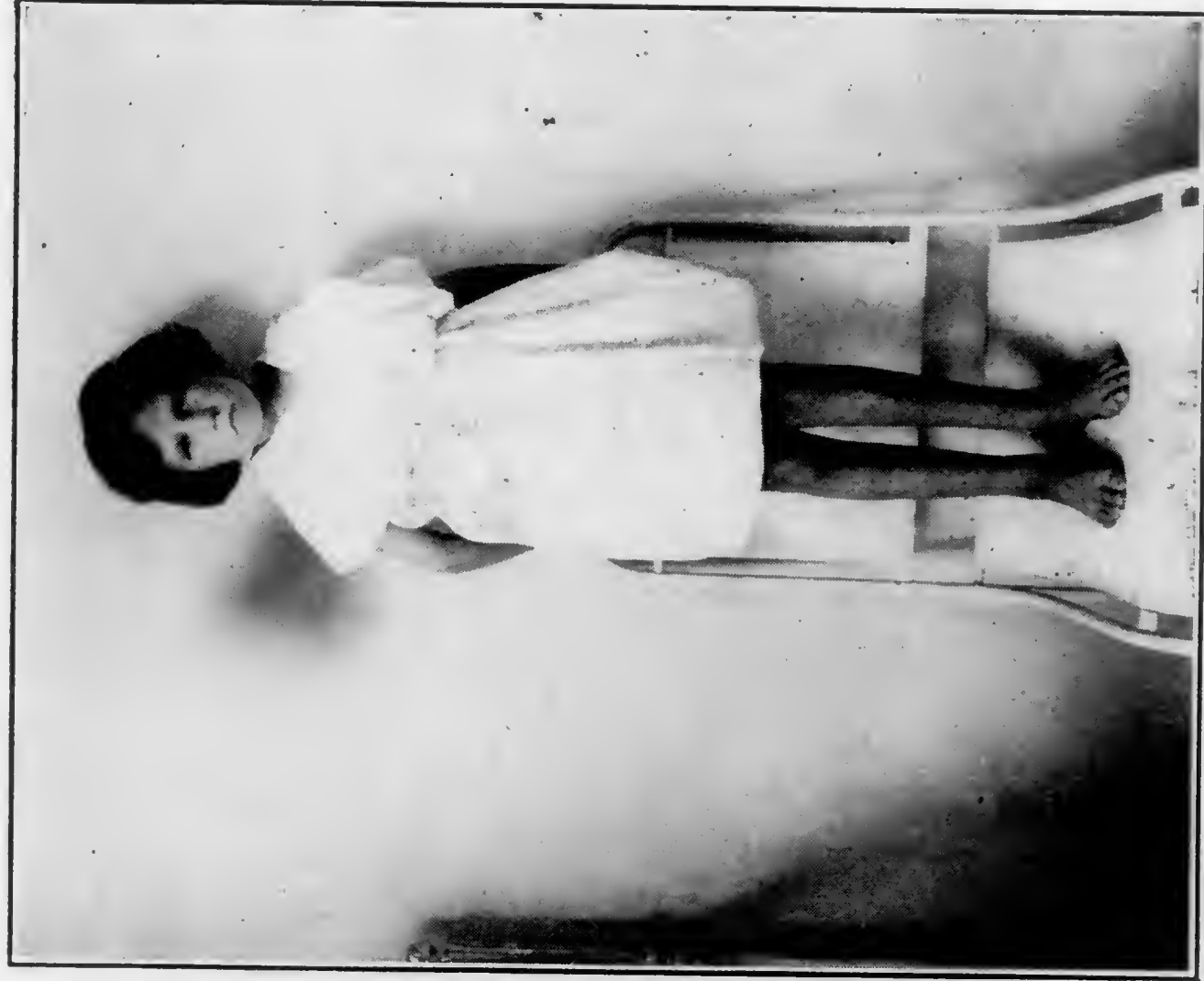


Figure 23.—G. K. Two months after corrective operation on bones and tendons of feet.



Figure 22.—G. K. Obstinate type of club foot (Talipes equino-varus).



Figure 23.—G. K. Two months after corrective operation on bones and tendons of feet.

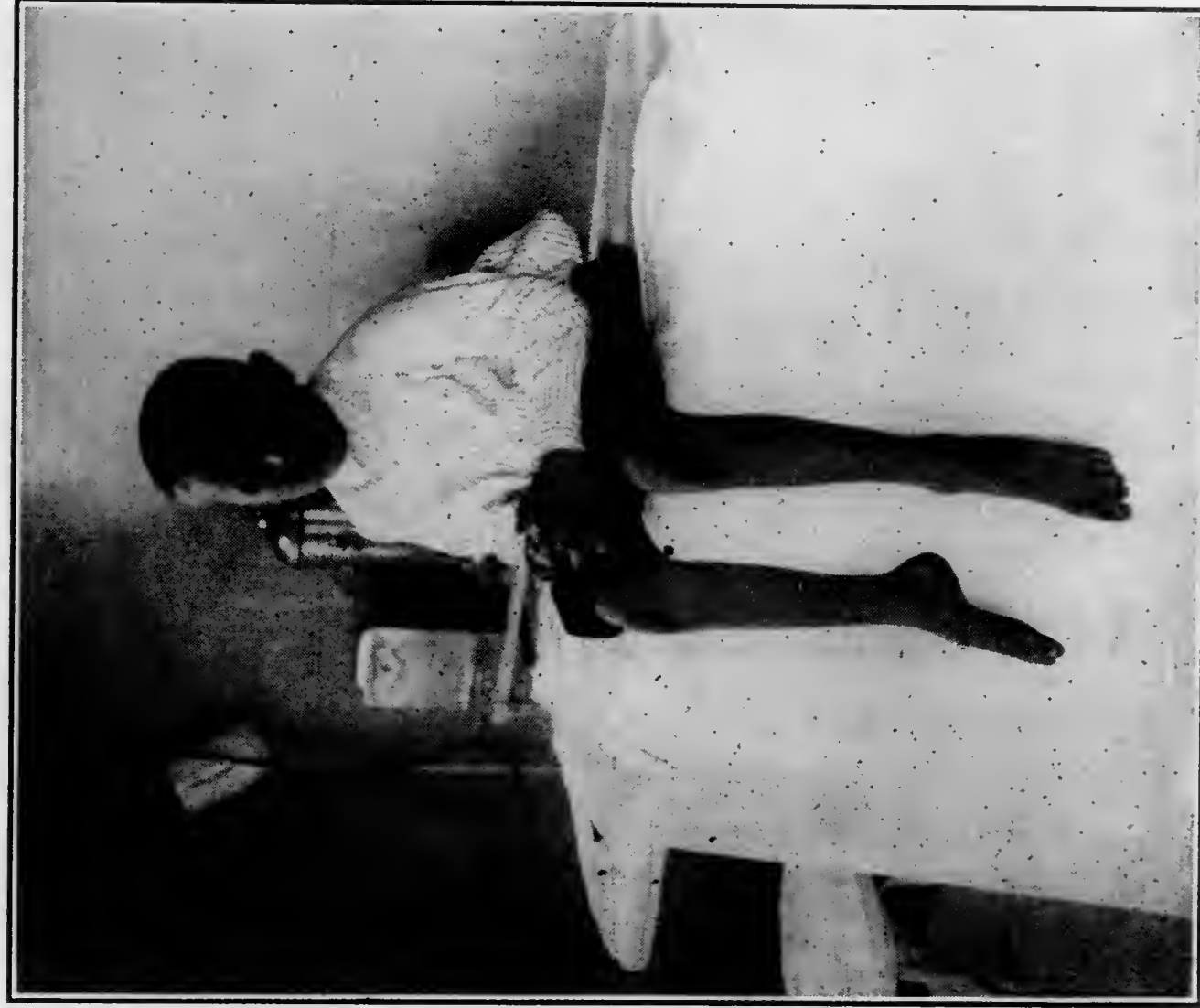


Figure 24.—W. W. Infantile paralysis involving both feet and legs—unable to walk.

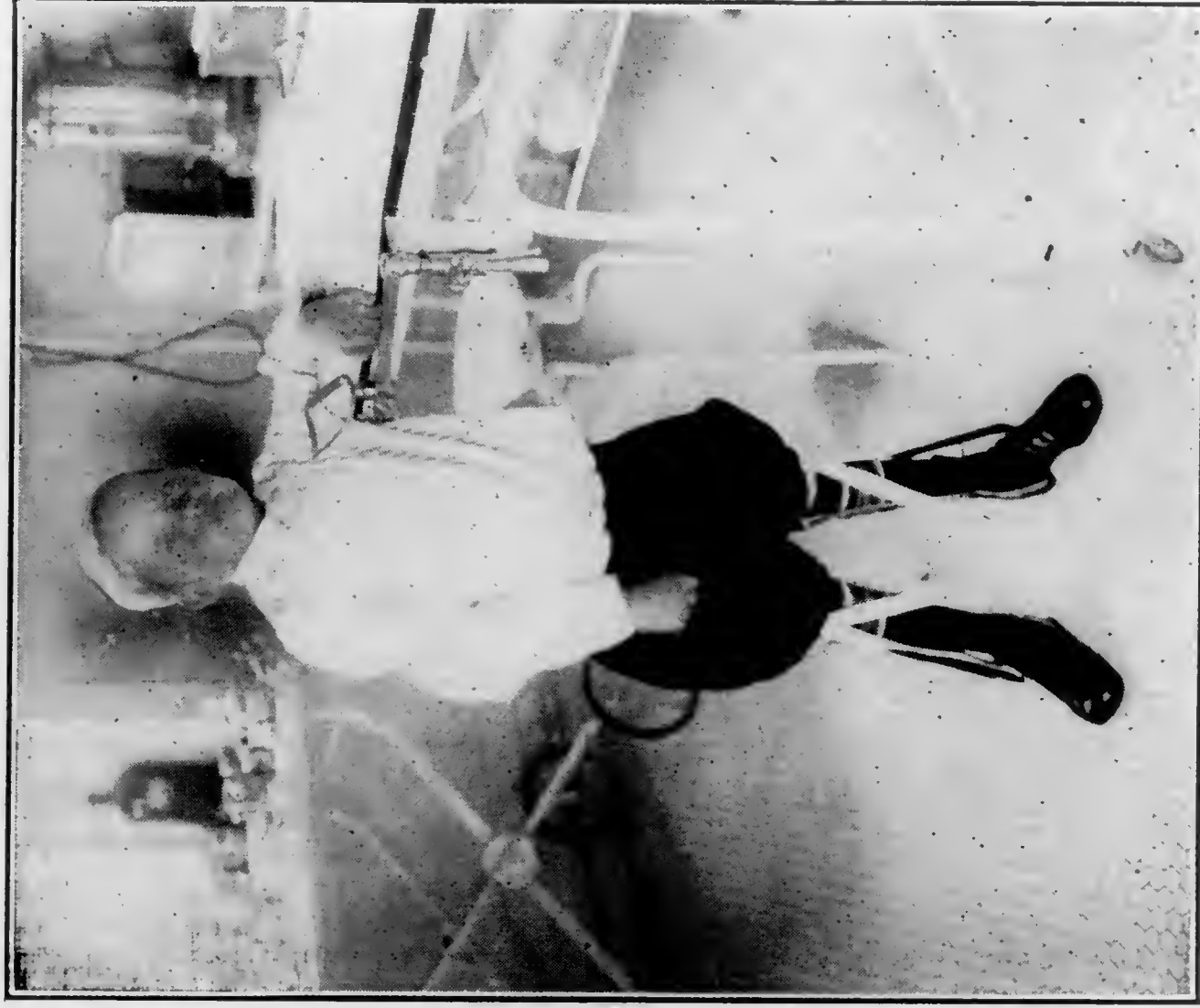


Figure 25.—W. W. Walking in suitable braces. No operation was needed.

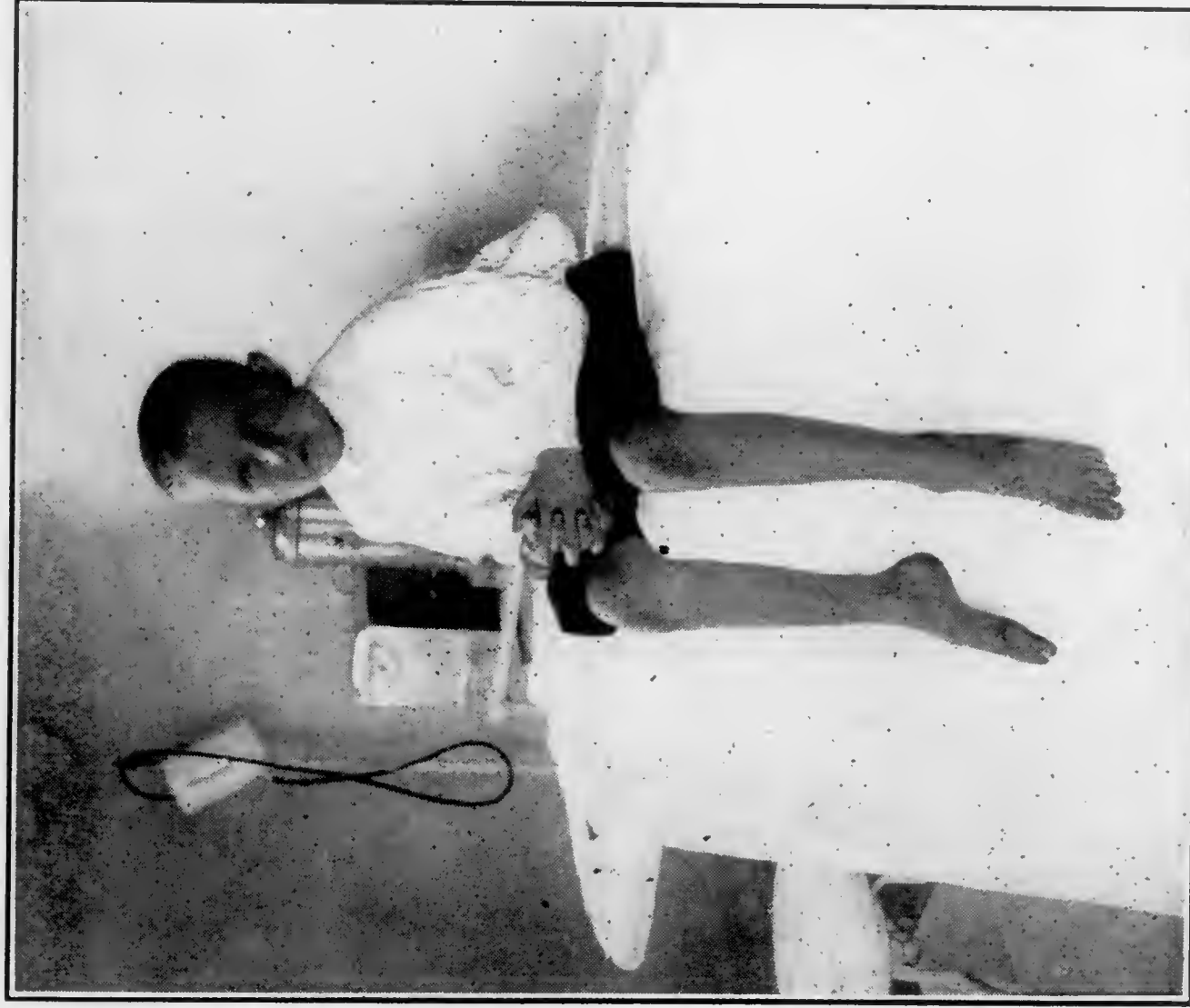


Figure 24—W. W. Infantile paralysis involving both feet and legs—unable to walk.



Figure 25—W. W. Walking in suitable braces. No operation was needed.



Figure 26.—E. M. Bow legs.



Figure 27.—E. M. Four weeks after operative correction.



Figure 26.—J.B. M. Bow legs.



Figure 27.—J.B. M. Four weeks after operative correction.



Figure 28.—D. S. X-ray of diseased bone (tibia) of right leg, (Osteomyelitis).

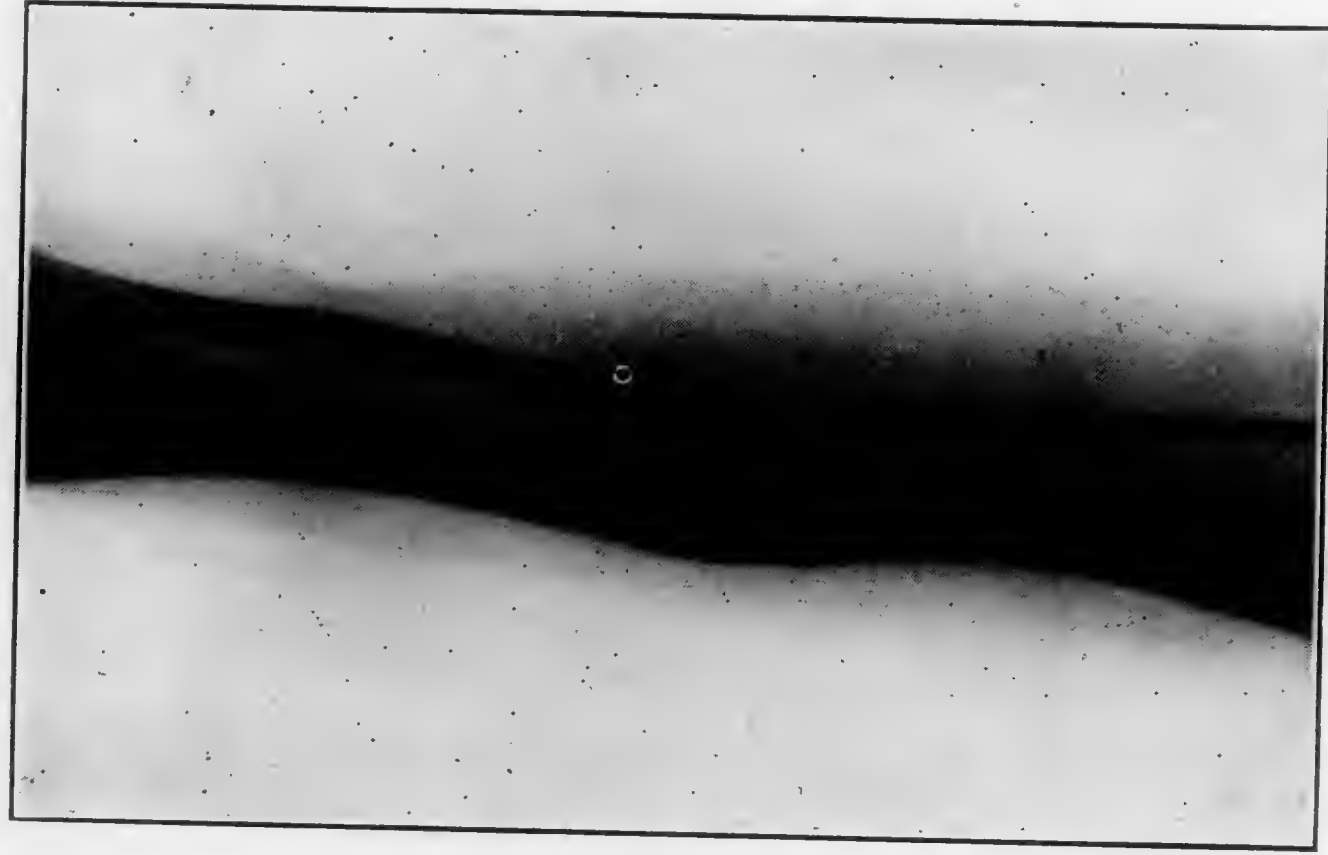


Figure 29.—D. S. X-ray after removal of diseased bone, and healing of wounds.

CONSOLIDATED REPORT OF ORTHOPEDIC DEPARTMENT, STATE BOARD OF HEALTH, YEAR 1915.

NAMES.		In St. Luke's 1-1-1915.	In Brewster (col. 1-1-1915.	Outside treat- ment. 1-1-15.	Applications received.	Admitted St. Luke's.	Admitted Brewster.	Admitted for of- fice treatment.	Examined, not admitted.	Total cases during year.	Operating, plas- ter work, special treatment, etc	Date discharged and condition.	DIAGNOSIS.	Under treatment Jan. 1, 1916.
A. F.	---	1	---	---	---	---	---	---	---	1	Curettage, skin grafting Plaster casts	Cured 8-21-15 Improved 6-20-15	Osteomyelitis and leg ulcers Curvature Spine	--
R. W.	---	1	---	---	---	---	---	---	---	1	Bradford frame plast. jacket Plaster Casts	---	Tbc. Spine	1
A. N.	---	1	---	---	---	---	---	---	---	1	Operation on bone.	Cured 11-15-15	Tbc. Hip.	1
F. P.	---	1	---	---	---	---	---	---	---	1	Operation on bone.	Cured 3-1-15	Osteomyelitis Femur.	---
P. G.	---	1	---	---	---	---	---	---	---	1	Operation on bone.	Improved 11-7-15	Osteomyelitis Humerus	---
L. W.	---	1	---	---	---	---	---	---	---	1	Plaster and adhy. dress.	Cured 2-21-15	Spastic Paraletic deformity.	---
E. A.	---	1	---	---	---	---	---	---	---	1	Plaster Casts	Cured 11-10-15	Club foot.	---
U. K.	---	1	---	---	---	---	---	---	---	1	Plaster Casts	Cured 2-21-15	Club feet.	---
L. H.	---	---	1	---	---	---	---	---	---	1	Plaster Casts	Cured 11-10-15	Tbc. Hip.	---
C. J.	---	---	---	1	---	---	---	---	---	1	Tenotomies Casts	Cured 6-26-15	Talipes Equino	---
G. K.	---	---	---	---	1	1	---	---	---	1	Operation on Bone-Casts	---	Tbc. Ilium	1
H. M.	---	---	---	---	1	1	---	---	---	1	606, etc.	Not Impvd. 4- -15	Spastic Paralysis	---
C. P.	---	---	---	---	1	1	---	---	---	1	Plaster jackets	---	Lateral curvature spine.	1
M. P.	---	---	---	---	1	1	---	---	---	1	Tenot. & Bone reset. Casts	---	Polio. deformity	1
R. F.	---	---	---	---	1	1	---	---	---	1	Plaster Casts	Cured 9-30-15	Tbc. Hip.	---
S. H.	---	---	---	---	1	1	---	---	---	1	Reduction and casts	Cured April, '15	Fracture Radius	---
E. K.	---	---	---	---	1	---	---	1	---	1				

CONSOLIDATED REPORT OF ORTHOPEDIC DEPARTMENT, STATE BOARD OF HEALTH, YEAR 1915.
(Continued.)

NAMES.	In St. Luke's 1-1-1915.	In Brewster 1-1-1915.	Outside treat- ment. 1-1-15.	Applications received.	Admitted St. Luke's.	Admitted Brewster.	Admitted for of- fice treatment.	Examined, not admitted.	Total cases during year.	Operating, plas- tic work, special treatment, etc.	Date discharged and condition.	DIAGNOSIS.	Under treatment Jan. 1, 1916.
L. B.	1			1	1				1	Tenot. etc., Osteo. Casts	Improved 10-26-15. Cured	Polio. Deformity	
E. M.				1	1				1	Osteotomies	6-28-15	Bow legs	
A. H.				1	1				1	Op. on bone joints & Tend.		Polio. Deformity	1
C. C.				1				1				Myelitis	
P. B.				1				1				Spastic Paralysis	
J. C.				1				1				Hernia	
C. K.				1				1		Plaster Casts		Comp. fracture	
W. H.				1				1		Massage Exercise		Club foot	1
E. M.				1				1		Cast	Not Improvd.	Spastic paralysis	
W. W.				1				1		Braces	Cured 8-1-15	Fracture Tibia	
B. Y.				1				1		Braces		Polio. Paralysis	1
R. W.				1				1		Tenotomies and casts		Polio. Paralysis	1
R. G.				1				1		Op. on Bone & Tend. Casts		Spastic Paralysis	1
W. McD.				1				1		Cast		Club foot	1
L. J.				1				1		Tend. Trans- plant Casts	Not Improvd. 11-14-15	Curvature Spine	
C. W.				1				1		Op. on bones & Tend. Casts	Improved 11-9-15	Polio. Paralysis	
W. H.				1				1		Bone reset		Club foot	1
O. D.				1				1		Bradford frame	Improved	Osteomyelitis	
S. W.				1				1		Cast, etc.		Tbc. Spine	1
R. McL.				1				1		Osteo. Casts.		Curvature Spine	1
D. W.				1				1		Op. bone s& Tend. casts.		Bow legs	1
				1				1				Club foot	1
TOTAL	8	1	1	29	20	3	2	4	39		18		17

REPORT OF DR. JAS. M. JACKSON.
Agent of the State Board of Health.

Miami, Florida, January 1, 1916.

Dr. Joseph Y. Porter,
Jacksonville, Florida.

Dear Doctor:—

The year now being at a close it becomes my duty to make a report of what has been done by your agent during the past year. The work has been largely, as in the past, advisory and educational. Much time has been taken up in advising the residents of the county along lines of rural sanitation, and in small towns where they were not incorporated and in thickly settled communities this has been quite a problem. While the majority of the population would realize the advantages to be gained by following proper hygienic rules, there have been at times those who seemed to care nothing for their own or their neighbor's health. This has caused quite considerable thought to be given along these lines and I hope much good has been done. The larger part of the population of the county being in Miami, which two years ago organized a City Board of Health the presidency of which was bestowed upon your agent, has caused him to give considerable time and thought to the workings and completion of a proper organization as was deemed best for a city the size of Miami. This Board with its efficient employees has done much for the health of Miami. The work of the Board has been quite comprehensive and at the same time the greatest effort of the Board has been directed toward the eradication of flies, mosquitoes, the caring for of garbage, the production of pure milk and water, and along other telling lines in health matters. Contagious diseases such as measles, diphtheria and things of that nature have been handled by the City Board of Health. I am glad to say that there have been but few of these as the physicians of the town have promptly reported and proper isolation and care have prevented the spread of these diseases. Outside of Miami we have had no diseases of a contagious nature reported. In the entire county during the past year there was not a case of smallpox reported, even among the negro race; this disease being one that is

usually imported in the winter time by the negro population and gives us some considerable trouble it has been quite a blessing to us to have none within the past year, and we believe that to the continued education which is given out through the county by the publication of the Public Health Notes of the State Board of Health, may be attributed largely the improved condition of the health there as well as to a certain extent within the incorporated towns and cities of Dade.

Respectfully,

(Signed) JAMES M. JACKSON.

REPORT OF DR. D. G. HUMPHREYS

Agent of the State Board of Health.

Fernandina, Fla., Jan. 1st, 1916.

Dr. Joseph Y. Porter,
State Health Officer,
Jacksonville, Florida,

Dear Doctor:—

I herewith submit my annual report for 1915. This has been a year of smallpox in Nassau County, and smallpox of so mild a type that it has been hard to control and difficult to persuade those in the immediated neighborhood to be vaccinated. The first case was a negro man at Evergreen Station, and was so far advanced that I did not send him to the pest house, but vaccinated the other members of the family and quarantined them in their own home, as the adjoining farmers agreed to take care of them. Four weeks later, when all were recovered, I released them and thoroughly fumigated, there was a good deal of excitement in the little neighborhood, and I made four different trips vaccinating, in all, about two hundred. About a month later, I was called to Hilliard, near Cummer's Lumber camp and found smallpox every where among the whites as well as the blacks, but in no way traceable to the first case, but coming from Jacksonville. Since this time I have made monthly trips throughout the County, vaccinating all who would be, but it is so mild and they fear it so little that even yet, now and then a case pops up.

I hope soon to attain the end that all will have been vaccinated or have had the disease. The general health of the County is good, very little malaria. The type usually intermittent and mild in character. Very few cases of typhoid fever were reported, not a single case of measles, dengue or scarlet fever, and only four cases of diphtheria were reported. There were four cases of Pellagra, three deaths and one recovery. Hookworm cases still come up for treatment, but they grow fewer each year. Tuberculosis, as stated in my former report, is principally confined to the colored race, and is more intelligently cared for each year. During November and December, Lagrippe prevailed throughout the County but there were no fatal cases, and but few cases of pneumonia.

The sanitary condition, of the small towns through the County is generally good. They are paying more attention to drainage each year. The sanitary conditions of Fernandina have been especially good, the local health authorities are in thorough accord with the State Board of Health and are endeavoring in every way to better health conditions.

Our local Registrar is endeavoring in every way to perfect our vital statistics report and in 1916 I hope to record every birth in Nassau County.

Respectfully,

D. G. HUMPHREY.

REPORT OF DR. H. A. JOHNSON.

Agent of the State Board of Health.

Palatka, Fla., Jan. 1st, 1916.

Dr. Joseph Y. Porter,
State Health Officer,
Jacksonville, Fla

Dear Doctor:—

I beg to enclose herewith my annual report for 1915.

Health conditions of Putnam County for 1915 have been exceptionally good. Malaria fever being almost entirely absent, there being less than in many years. No pernicious types being reported at all.

Three isolated cases of mild typhoid fever occurred but were traceable to outside infection.

An outbreak of bacillary dysentery appeared in the lower end of the County during the Autumn months, of a somewhat virulent type, but was confined almost entirely to two lumber camps and the immediate territory surrounding. Some fatalities occurred among infants, but not among the adults. In one instance the wells were found to be infected; in the other camp flies seemed to be the cause. It was followed by an unusually large number of cases of arthritis. But by careful screening and insisting on the use of artesian water, the epidemic never spread to any alarming proportions.

A wave of la grippe spread over the County during November and December, but was mild in type and there were but few complications.

Twelve cases of diphtheria were reported during the year. No cases were traceable to the cases that were reported and isolated. There was evidently a great many mild cases that were not reported or were not recognized by attending physicians. This is particularly true among the colored population. A great many Negroes have diphtheria that are never treated by any physician, and they are evidently the great source of danger to the young children who play on the streets, are constantly exposed to.

No cases of smallpox or scarlet fever reported during the year.

Hookworm disease is very rare, as most of the people have taken advantage of the treatment long ago.

Tuberculosis as far as ascertainable is about the same as in the previous year. It is confined largely to the colored race, among whom it is spreading rapidly as they seem not to take kindly to ventilation.

Very respectfully,

H. A. JOHNSON, M. D.

Agent State Board of Health.

REPORT OF BOARD OF EMBALMERS' EXAMINERS.

DR. JOSEPH Y. PORTER, Chairman

DR. HENRY HANSON,

DR. C. H. DOBBS.

REPORT OF BOARD OF EMBALMERS' EXAMINERS

Jacksonville, Fla., May 17th, 1915.

To the President and Members of the State Board of Health:

The annual examination of applicants for embalmers' licenses was held at Jacksonville in the executive offices of the State Board of Health on May 15th and 16th. In accordance with the usual custom, this examination consisted of both written and oral tests, much assistance being rendered in the latter by Mr. H. S. Moulton, of this city, and Prof. Chas. O. Dhonau, of the Cincinnati College of Embalming.

The following questions made up the written examination.

EMBALMING.

1. What do you consider a positive sign of death, and what methods would you employ to determine that life is extinct?
2. What are the purposes of embalming?
3. Name and describe the different methods of embalming.
4. Which is the more important of these methods and why?
5. Under what conditions is it impossible to do arterial embalming?
6. A body of a person dead from drowning has been in the water for several days, and has undergone partial decomposition. How should you proceed in such a case?
7. How would you embalm a body on which an autopsy has been performed?

ANATOMY.

8. Name the important organs in the three principal cavities of the body, stating in which cavity each organ is found.
9. What is the aorta? Describe it and its branches which are important from the embalmer's standpoint.
10. Describe in detail how you would locate the femoral artery.

BACTERIOLOGY.

11. What are bacteria? In what part of the body are bacteria always present in large numbers?
12. What bacterium is the cause of "consumption," and where is it most commonly found?
13. How does putrefaction or decay take place, and how does embalming prevent it?
14. What bacterium would you expect to find in the throat of a child who has died of "membranous croup?"
15. What diseases can be successfully vaccinated against?
16. Under what conditions would it be safe for you to handle a body dead of smallpox?

STATE BOARD OF HEALTH RULES.

17. What bodies are forbidden transportation?
18. What bodies are required to be embalmed before shipment?
19. What restrictions are placed upon the shipment of bodies

dead from a non-contagious or non-infectious disease?

20. What preparation is necessary before shipping a body dead from typhoid fever?

In the oral examination each applicant was asked from five to ten questions, all of which of a very practical nature and designed to bring out his actual knowledge of embalming rather than a mere theoretical or textbook familiarity with the subject.

It is encouraging to note the improvement from year to year in the class of applicants presenting themselves for this examination. The proportion of successful candidates has, of course, increased accordingly.

Of the 16 applicants who were found eligible and were admitted to the examination this year, the following 14 were successful in making the required average grade of 75 per cent, and were accordingly granted licenses to practice embalming in Florida:

V. C. Brownlie, Melbourne, Fla.	License No. 162
C. E. Carlson, St. Cloud, Fla.	" " 163
Edward B. Carter (col.), Miami, Fla.	" " 164
Ozier E. Fisher, Lake City, Fla.	" " 165
Louis O. Gravely, Wauchula, Fla.	" " 166
J. L. Giddens, Valdosta, Ga.	" " 167
A. M. Harrison, Daytona, Fla.	" " 168
J. Earl Koon, Lake City, Fla.	" " 169
Chas. S. McIntosh, Orlando, Fla.	" " 170
W. T. Robarts, Alachua, Fla.	" " 171
John J. Skillman, Miami, Fla.	" " 172
Israel Basil Stone (col.), Melbourne, Fla.	" " 173
Wilbur W. C. Smith, Ocala, Fla.	" " 174
O. M. Willis, Perry, Fla.	" " 175

Respectfully submitted,

BOARD OF EMBALMERS' EXAMINERS,

Joseph Y. Porter, Chairman.

BACTERIOLOGICAL LABORATORIES

REPORTS OF

DR. HENRY HANSON, Senior Bacteriologist,
Central Laboratory

DR. H. R. MILLS, Bacteriologist,
Tampa Laboratory.

DR. F. A. BRINK, Bacteriologist,
Pensacola Laboratory

DR. J. Y. PORTER, JR.,
Key, West, Florida

DR. IVA C. YUMAN, Bacteriologist,
Miami Laboratory

DR. W. A. CLAXTON, Bacteriologist,
Tallahassee Laboratory

REPORT OF DR. HENRY HANSON

Senior Bacteriologist.

Jacksonville, Fla., Jan. 1, 1916.

Dr. Jos. Y. Porter,

State Health Officer,

Jacksonville, Florida.

Dear Doctor:—

The report of laboratory operations for 1915, shows that all laboratories have exceeded the past records in the number of public health examinations made. Tampa and Pensacola fell below in the grand total as compared with 1914, but this was due to the fact that rat examinations were not made in Pensacola during 1915, and very few made in Tampa. The strictly public health work, however, was higher than formerly.

The number of specimens of feces submitted for examination for hookworm and other animal parasites has been small. This is unfortunate because hookworm disease has an important bearing on other diseases, especially pellagra. The debilitating effect of uncinariasis makes the sufferer a ready prey to disease and decidedly interferes with digestion and the assimilation of food. Inasmuch as pellegra has been proven to be due to "an unbalanced diet," it is evident that a parasitic disease of the gastro-intestinal tract will, of itself, interfere with the assimilation of products of digestion to such an extent that it becomes the equivalent of an unbalanced diet. This theory was advanced in the Pellagra Symposium at the Conference of Health Officers at Pineville, Ky., 1914, and again by McNeal and the writer at the Third Triennial Conference for the Study of Pellagra at Columbia, S. C., 1915; also in my paper read at the meeting of the Florida State Medical Association in DeLand, Fla., 1915.

Intestinal
Parasites.

Disease, any departure from a state of health, is a response to some form of injury, whether it be due to pathogenic bacteria, chemical or physical agents. The severity of the disease depends upon the individual's ability to respond, and to repair the injury done to the tissues. In some instances this response is so rapid that no disease is manifest and is known as **immunity**.

Immunity plays a role in individuals living on an

unbalanced diet as well as with other disease producing agents. It is perfectly clear that one may reach the borderline of tolerance for diet and that hookworms would add the necessary amount of injury to destroy the defensive mechanism and result in active manifestations such as pellagra. Uncinariasis also bears a similar relation to other constitutional diseases either organic or functional, and for reasons of this kind I do not believe that we should allow ourselves to be discouraged in waging an active campaign for detection and cure of existing cases by the fact that the majority through a disregard of teachings become reinfected. Those who have hookworm disease and pellagra show a remarkable improvement following thymol treatment, regardless of special attention to diet. The immediate effects of the hookworm treatment seem to consist in the restoration of a normal appetite which demands more food and a variety which is not supplied by that on which the pellagrin subsists.

Diphtheria.

Diphtheria has required the greatest amount of work of any of the diseases where the laboratory has been called upon to render aid. The difficulty associated with diphtheria work is largely due to the lack of unanimity of opinion within the profession. This probably arises from certain inherent difficulties in differentiating true diphtheria from diphtheroid and pseudo-diphtheria bacilli. There is also a great deal of difficulty in making a clinical diagnosis, due to a very decided deviation from the classical appearance of the throats of persons who have the disease. These facts seem to me to justify a resume of the subject with the hope of bringing out the most important points. The resume is given as a supplementary report in which special laboratory research is included.

It seems that the laity and some physicians fail to understand how it is that apparently well individuals can harbor virulent bacilli in their noses and throats without developing diphtheria. Some find it difficult to understand how it is that diphtheria bacilli can be found in cultures from a throat which although diseased, does not have a membrane, but simply shows a picture of follicular tonsillitis.

In regard to the first class, namely, those who are apparently well and yet show virulent bacilli in their throats, there is no inconsistency, because all infectious

diseases depend upon the susceptibility of the individual who is exposed to the infection. There are very few individuals who do not at some time or another become sufficiently exposed to contract the various infectious diseases were it not for the fact that they possess immunity to such diseases. Some of these while they do not develop the disease, nevertheless, contract and harbor the germs as mechanical carriers and can transmit such germs to other individuals. In the 1914 report of the State Board of Health of Indiana, "The Carrier" is cited as the most important factor in the spread of diphtheria.

When one examines the statistics on the monthly prevalence of diphtheria one finds the greatest number of positive cultures are obtained during the Fall months, with a maximum in November, after which there is a gradual decline and the cases are not so numerous again until the same period the following year, which corresponds with the opening of the schools. In order to get more complete data on this, I would recommend that a number of schools, where no diphtheria cases are existing, be investigated during the winter and spring months to ascertain the number of carriers during a period of absence of active cases from the schools. Also that virulence tests, by inoculation of the positive cultures in guinea pigs, be made according to a standard technique.

During the Summer of 1915, the number of positive cultures in the central laboratory were twenty-one for April, eight for May, eight for June, ten for July, thirty-four for August and in September a decided increase up to seventy and then a more decided increase in October and November up to two hundred and eighty-eight and five hundred and two respectively. December shows a decided decline, indicating a return to normal.

I was told that diphtheria is seldom diagnosed in certain of the mountain resorts to the North where Florida families spend their summer vacations. Any disease of the throat in these places is called mountain sore throat whether it is treated by antitoxin or not. If this is true one can readily see why there is such a decided increase in diphtheria following the return of these children to their homes and their admission to the schools.

This would suggest the advisability of taking cultures from all children on their first day in school, instead

of waiting until the disease has actually appeared "in a room." One could also go a step farther and, by means of the "Schick Test," determine the susceptible and the immune, which would be available in case the children later became exposed to an actual clinical case of diphtheria.

Gonorrhoea.

During the past year we have had seven hundred and fifty specimens submitted for examination for gonococci with 46.4 per cent positive. In 1914 there were six hundred and seventy-one specimens submitted with 41.8 per cent positive. These percentages are quite similar to those reported from the State Board of Health of Indiana. If more accurate methods of diagnosis were introduced it is quite probable that this percentage would be higher. Cultures from females are almost invariably unsatisfactory. All leucorrhoeal discharges from the vagina are not due to the gonococcus, but when it is, it is usually associated with a profuse fauna of other bacteria, many of which simulate the gonococcus in morphology and staining reaction. Before taking a smear where such infection is suspected in a female, a cleansing douche should be given and smear taken direct from os uteri or the urinary meatus, etc. The complement fixation test should also be considered as an aid in diagnosis especially in the chronic cases.

Malaria.

The total malaria examinations have been slightly less than for 1914, but the percentage of positive cases has been higher, being 6 per cent for 1914 and 7.24 per cent for 1915. In the work on malaria I believe that it would be well to suggest a change in the technic of securing specimens, and instead of securing only thin smears as in the past, we should recommend a thick smear and also a quantity of blood in sterile vials up to one or two cubic centimeters or more, drawn and sent in in sterile 3 per cent sodium citrate solution. This would be of special value in detecting carriers of malaria parasites, especially of the aestivo-autumnal variety. A technic of this kind has been proposed by Krause, of Memphis, Tenn., and was reported at the last meeting of the Southern Medical Association.

In brief, the technic consists in centrifuging blood obtained in this way so as to get a great concentration of red blood cells. The concentrated red blood cells are treated with a small quantity of formaldehyde and washed with normal salt solution, then laked by distilled water and centrifuged again and the residue, mounted on a slide, is stain-

ed by one of the various staining methods. This gives a beautiful picture in that one finds an enormous number of parasites on such slides while on the ordinary thin smear slides one would have to search for a long time before finding more than one or two parasites.

In the central laboratory we use the modified Giemsa stain, and have a rule that no smear shall be reported negative until one-half hour has been consumed in careful search for parasites. If found, the type is recorded and reported. The types are usually benign tertian or aestivo-autumnal; the quartan is extremely rare in Florida.

Ninety-eight specimens of tissue have been submitted for diagnosis during the year with sixty-eight which showed malignancy. This work has not been as great as it should be when one considers the immense value that such examinations are to the public and to the physicians. It is a line of work which requires a great deal of time and study by one who is competent to make diagnoses of this kind. The technic in this work should be so perfected that a diagnosis could be returned in forty-eight hours after the tissue is received. If this work is to be featured a freezing microtome should be provided.

Pathological
Tissues.

These specimens each individually require a very much greater amount of time for examination than any of the others listed in our tabulations. The total time consumed in preparing and examining these means several hours for each specimen. It is true that some are quite simple and one can make a diagnosis very soon after the tissue is mounted but in order to determine the real type of cells involved and its origin one can rarely complete an examination in less than an hour. An incomplete study might be the cause of an unnecessary amputation of a breast, or an arm, or a leg, or the removal of ovaries, tubes and uterus, or what would be even worse, prevent the removal of these structures until too late by failing to find the carcinoma or sarcoma which existed.

We have been fortunate in having a very small number of cases of rabies in the State during the past year. The central laboratory has had only sixty-seven such examinations with twenty-four positive which is a much lower percentage than for the preceding years. As you will notice the positives are 41.7 per cent. In previous years our positives have run as high as 69. per cent.

Rabies.

1915	67 Examinations	41.7 per cent Positive
1914	82 Examinations	43.9 per cent Positive
1913	119 Examinations	60.5 per cent Positive
1912	139 Examinations	69.0 per cent Positive
1911	169 Examinations	58.5 per cent Positive
1910	53 Examinations	56.6 per cent Positive

In this work on rabies we were doing some very interesting experimental work with street virus which unfortunately for us, had to be temporarily discontinued on account of the lack of active street virus. I have already alluded in my monthly report to the inoculation of rabbits with street virus with the idea of obtaining an anti-serum. We have on hand two rabbits which have been immunized to the point where they cannot be killed by injections of huge amounts of active street virus. We have had but one opportunity of testing this serum on rabbits inoculated for diagnostic purposes and, while it did not give the results that we hoped for, still the result indicates that something can be done towards the preparation of an anti-rabic serum which will be curative if given in the first stages of the disease.

The rabbit which we treated with this anti-rabic serum was kept alive forty-eight hours longer than any other rabbit after developing definite symptoms of rabies.

Tuberculosis.

The specimens of sputum submitted for examination for tubercle bacilli were fewer than during 1914. We had one thousand five hundred and seventy-five specimens with three hundred and forty-five positive, or 21.25 per cent. It is expected that there will be more work of this nature during the coming year as a result of the activities of the public health nurses.

A great deal has been said about methods of sputum examination but I believe that we have one which is quite simple, which increases our number of positives and makes this work free from danger to those who make the examinations. Our sputum bottles are sent out containing a quantity of 5 per cent lysol solution in which the sputum is collected and sent to the laboratory. All such sputa are autoclaved which has the effect of breaking up the mucus, forming a uniform suspension of finely divided mucoid particles which can be centrifuged. The sediment in the centrifuge tube then contains the concentrated tubercle bacilli if present. Unfortunately there are many who accept a negative report on a single sputum examination as conclu-

sive. We have tried to impress upon all the fact that the only conclusive report on a sputum from a patient with clinical symptoms pointing to tuberculosis is the positive report. One must admit that there is only a limited number of people who actually derive benefit from the search for tubercle bacilli in the public health laboratory; and yet it pays.

Other tests, such as tuberculin preparations, have been discussed for a number of years, some of which are valuable in the hands of those who understand how to use them. The most recent discussion on laboratory diagnosis has been on the complement fixation in tuberculosis.

The number of typhoid examinations was slightly less than for the previous year. This, as well as the reduction in other specimens, such as tuberculosis, malaria, etc., is undoubtedly due to the fact that much of this material has been sent to the Miami and Tallahassee laboratories while formerly it came to the central laboratory.

Typhoid.

1915	2142 Widal tests with 18.2 per cent positive
1914	2199 Widal tests with 21.5 per cent positive

The tendency to the universal adoption of typhoid vaccine is diminishing the value of the agglutination test for diagnostic purposes. More cultural methods must be substituted, such as blood cultures, cultures from stools, etc. At the same time new technique, with accuracy and time saving elements embodied, must be perfected. More bacteriological investigation as well as more intensive epidemiological work is necessary.

Thirty-three para-typhoid agglutination reactions have been made with two positive findings. During the coming year it would be advisable to run a widal test with cultures of para-typhoid A, and B, on all specimens which have typhoid symptoms but give a negative bacillus typhosus widal reaction. Many cases with typhoid symptoms, but with negative widads, give positive agglutination with one of the para-typhoid strains. It has been reported by word of mouth of physicians that there have been outbreaks of para-typhoid fever in more than one locality in this State during the year.

Para-Typhoid.

One hundred and fifty-nine urinalysis are listed in the report. Most of these urinalysis have been made for patients at the Free Dispensary, patients at the County

Urinalysis.

Hospital and for the indigent patients in the city. While I think it is advisable to exclude urinalysis from the routine I feel that it is quite appropriate to make exceptions in cases of this kind.

Water
Analysis.

Water analysis show a very decided increase during the past year. We started with the idea of getting more information as to the actual conditions of the water in various portions of the State, and encouraged physicians and laymen in submitting samples from wells of all kinds whenever analysis were desired. We found what we expected, that water analysis made in this way gave very little useful information. This is due to the fact that very few individuals understand the necessary technic for collecting a sample of water without contaminating the same.

One thousand and twenty-five bacteriological analyses have been made with five hundred and eighty-five showing the presence of colon bacilli. Eight hundred and seventy-five chemical analyses were made with one hundred and twenty showing results indicating chemical evidence of sewage pollution.

Of the number showing the presence of colon bacilli it is impossible to estimate the proportion due to actual pollution of the supply or well, and that due to contamination by dirty hands or other errors in technic. It would be well from this time on, to discontinue the practice of ordering containers sent to all who ask for them, regardless of epidemiological evidence.

The presence of colon bacilli in a drinking water is more prevalent than is commonly supposed. If one were to take samples of water from glasses at hotels, restaurants, soda fountains, in the homes, or in other words as it reaches the ultimate consumer, one would be in a quandary about harmonizing such facts with the accepted standards of permissible impurity in "good drinking water." Very few people have any conception of how many bacteria of human fecal origin enter into their daily consumption.

While I do not consider it advisable to make chemical analysis on all samples, there are samples where conditions are such that a sanitary chemical analysis gives valuable information. This line of work comes within the sphere of activities of the Sanitary Engineer and from the experience of the past years it seems to me desirable to have a Sanitary Engineer with a laboratory equipment for

this work. For this purpose a room is needed where ammonia free distilled water can be produced and where Kjehldahl distillations could be made free from fumes arising from other routine work of the laboratory.

Included in the nineteen hundred bacteriological and chemical water analyses reported are one hundred and seventy-eight samples of water taken from the coaches and Pullmans on trains at the Union Depot in Jacksonville. This is reported in a separate article entitled, "Purity of Water Served by Common Carriers," by the writer and Mr. W. D. Hayes, Assistant Bacteriologist and Chemist.

We have listed one hundred and forty-nine differential counts which have been made to ascertain a possible pyogenic infection, or to find an eosinophilia which might point to the presence of intestinal parasites.

Blood Counts.

Under the miscellaneous work we have included animal inoculations which have been checks on rabies specimens and on checking the virulence of diphtheria bacilli.

Miscellaneous.

Under the miscellaneous unclassified we have included Wasserman tests for patients from the Free Dispensary, County Hospital and the Florida Hospital for the Insane. We have also included under this the cultures taken from soda fountain glasses and milk analysis. The analysis of samples of milk sent in by field men has emphasized the importance of more dairy supervision by the State Board of Health. Many of these dairies produce dirty milk with high bacterial counts, simply because they have not been properly instructed in the necessity for clean milk and how to produce it.

In the course of a year's work, concerned in the examination of more than nineteen thousand different specimens, one has had about nineteen thousand ideas in regard to points which tend to improve the service and to the use made of this vast amount of valuable, accurate, scientific information, for the good of the tax payer, and those who are too poor to pay taxes, as well as those who are too rich to pay their legal ratio. A correlation of cause and effect is necessary.

The various tabulations shown below give information regarding the number of each and all specimens examined, the total cost of laboratory operations, the cost per specimen for each laboratory, the average cost per specimen for all laboratories, supplies sent to branch labora-

tories from stock on hand in the central laboratory, the number of specimen containers sent over the State, and distribution of communicable diseases according to examinations made by the laboratories.

In conclusion I feel that the work of the central laboratory has been more satisfactory than during any of the previous years. Numerous experiments of a minor nature have been conducted in order to perfect the technic and to expedite practical and accurate reports on all work required of the laboratory. My thanks are due to all assistants, both technical, clerical and others, for their untiring efforts in keeping the work up to the high standard which has been maintained; to the State Health Officer for his customary courtesy, helpful advice and generosity in responding to the demands of the laboratory.

Respectfully submitted,

HENRY HANSON,

Senior Bacteriologist.

The percentage of positives on the total number of specimens examined in the laboratories is as follows:

Animal Parasites:	Total examinations-----	3,831	
	Positive examinations-----	1,245 or 32.5 per cent	
Diphtheria:	Total swab examinations--	1,059	
	Positive examinations---	205 or 19.35 per cent	
	Total culture examinations	11,943	
	Positive examinations---	1,936 or 16.21 per cent	
Gonorrhoea:	Total examinations-----	1,880	
	Positive examinations;---	698 or 37.12 per cent	
Malaria:	Total examinations-----	5,169	
	Positive examinations----	307 or 5.93 per cent	
Pathological Specimens:	Total examinations-----	253	
	Malignant -----	115 or 45.45 per cent	
Rabies:	Total examinations-----	87	
	Positive examinations-----	35 or 40.23 per cent	
Tuberculosis:	Total examinations-----	3,400	
	Positive examinations-----	727 or 21.38 per cent	
Typhoid:	Total widal examinations	4,729	
	Positive examinations-----	681 or 14.41 per cent	
Para-Typhoid:	Total examinations-----	85	
	Positive examinations-----	16 or 18.8 per cent	

The average percent of positives of all examinations is 25.14.

TABLE SHOWING COST PER SPECIMEN.

Laboratory	No. Specimens	Cost of Operation	Cost per Specimen.
Central Laboratory	19,708	\$11,959.08	\$.6068
Tampa Laboratory	10,100	6,901.98	.6833
Pensacola Laboratory			
(Not including cost of construction)	4,363	4,080.99	.9353
Tallahassee Laboratory	3,281	3,594.09	1.0950
Miami Laboratory	2,395	2,950.47	1.2319
Key West Laboratory	830	427.04	.5144
Average cost per Specimen for all Laboratories \$.8444.			

SPECIMEN CONTAINERS SENT OUT FROM STOCK ON HAND AT THE CENTRAL LABORATORY DURING THE YEAR 1915.

Uncinaria -----	5,259
Diphtheria -----	6,072
Malaria -----	2,360
Typhoid -----	2,377
Tuberculosis -----	2,314
Gonorrhoea -----	837
Ophthalmia -----	13
Water Bottles -----	631
	19,863

The small number of diphtheria specimen outfits sent out compared with the number examined is accounted for by the fact that more than one thousand examinations were made on release cultures sent in by the Jacksonville City Board of Health, who this year, have made their own swabs.

On the other hand there is a discrepancy in the other direction in the number of outfits sent out for conveying specimens of feces to the laboratory to be examined for intestinal parasites.

SUPPLIES SENT TO THE BRANCH LABORATORIES FROM STOCK ON HAND AT THE CENTRAL LABORATORY DURING THE YEAR 1915.

TAMPA LABORATORY.

10,000 Specimen Report Blanks.
8,475 Specimen Data Blanks.
1,500 Specimen Mailing Envelopes.
3,000 Mailing Labels.
2,000 Letter Heads.
1 Package Envelopes.
24 5 c. c. Amphules.
6 10 c. c. Amphules.

PENSACOLA LABORATORY.

4,500 Specimen Report Blanks.
7,138 Specimen Data Blanks.

2,000 Name Labels Sputum and Hookworm Bottles.
 3,000 Address Labels.
 950 Specimen Mailing Envelopes.
 2,000 Letter Heads.
 200 Physician's Index Cards.
 18 Small Water Bottles.
 6 Large Water Bottles.
 3 Boxes Cover Slides.
 100 c. c. Ponder's Stain.
 70 1 c. c. Amphules.
 18 5 c. c. Amphules.
 1 lb. Shredded Agar.
 1 Typhoid Culture.

MIAMI LABORATORY.

100 Grams Peptone.
 1,250 Specimen Report Blanks.
 1,688 Specimen Data Blanks.
 896 Specimen Mailing Envelopes.
 288 Mailing Blocks.
 500 Address Labels.
 100 Reimbursement Sheets.
 88 Sheets Distribution of Diseases.
 500 Letterheads.
 124 Sputum Containers.
 124 Hookworm Containers.
 1 Mechanical Stage.
 1 Typhoid Culture.

TALLAHASSEE LABORATORY.

2,000 Specimen Report Blanks.
 2,150 Specimen Data Blanks.
 1,000 Letterheads.
 1,100 Second Sheets.
 100 Copy Sheets.
 100 Reimbursement Sheets.
 200 Order Blanks.
 500 Mailing Specimen Envelopes.
 900 Address Labels.
 100 Test Tubes, 120 X 18 MM.
 20 Sheets Filter Paper.
 3 Boxes Cover Slides.
 4 Reporter's Note Books.
 1 Mechanical Stage.
 1 Albuminometer.
 1 Ureometer.

SUPPLIES SENT TO THE BRANCH LABORATORIES FROM
 STOCK ON HAND AT THE CENTRAL LABORATORY
 DURING THE YEAR 1915.

TALLAHASSEE LABORATORY (Cont.)

100 c. c. Ponder's Stain.
 30 c. c. Phenolphthalein Solution.
 40 gms. Peptone.
 4 Oz. Methyl Alcohol.
 3 Oz. Mercuric Chloride.
 10 1 c. c. Pipettes.
 3 5 c. c. Pipettes.
 1 Typhoid Culture.

KEY WEST LABORATORY.

200 Specimen Data Blanks.
 50 Blanks Distribution of Diseases.
 100 c. c. Ponder's Stain.
 15 Test Tubes.
 1 Typhoid Culture.
 1 Para-Typhoid Culture.

STATEMENT OF SPECIMENS EXAMINED
In the Central Laboratory, Jacksonville, Florida, 1915.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total	Grand Total
Animal Parasites														
Hookworm:														
Pos.	52	33	36	48	55	45	41	42	40	36	74	37	539	
Neg.	110	88	82	96	125	164	99	132	90	87	99	76	1248	
Unfit							1		1				2	
Ameba	3		3	2	1	6	3	3	4	3	3	1	32	
Ascaris	1	2	2	3			1	1	2	1	2		15	
Oxyuris	2	1	1		1	2	1		1		1	1	11	
Strongyloides						1					1		2	
Tapeworm	4	3	2	7	7		2	2	3		1	1	32	
Trichiuris				4	2	3	1	1		3	5	1	20	1901
Diphtheria:														
Swabs:														
Pos.	5		2	6	2	1	3	10	22	25	32	19	127	
Neg.	25	22	18	13	8	6	3	31	41	88	75	57	387	
Doubtful	1				1		1	1	6	3	2	3	18	
Cultures:														
Pos.	55	34	17	21	8	8	10	34	70	288	502	224	1271	
Neg.	797	132	76	73	46	36	9	137	194	1034	2622	826	5982	
Doubtful	11			1	3	1		7	7	15	37	4	86	7871
Gonorrhoea:														
Pos.	39	23	20	32	34	38	37	38	28	18	17	24	248	
Neg.	36	27	38	15	21	20	27	29	43	27	46	56	385	
Doubtful		1	1	4	1	3		1	1	3		2	17	750
Malaria:														
Pos.	6		5	3	13	4	19	19	26	28	36	17	176	
Neg.	113	143	224	141	160	218	222	206	207	174	148	116	2072	
Doubtful	2		2	1	3	6	2	4	4	3	3		30	2278
Pathological Specimens:														
Malignant	4	5	11	4	5	7	3	9	4	8	3	5	68	
Non-Malignant	2	7	3	1	1	5		3	3	3	2		30	98
Rabies:														
Dog: Pos.	1		2	3	3	2	3	1	1	1			17	
Neg.	1	4	3	1	1	3	3	1	1	2	1		21	
Doubt		1					2						3	
Cat: Pos.			1	1		1	1						4	
Neg.	2		1	2	3			1			1		10	
Doubt	1						1						2	
Cow: Pos.			1			1							2	
Neg.					1								1	
Horse: Pos.							1						1	
Pig: Po.								1					1	
Rabbit: Pos.			1	1		1							3	
Neg.				1	1								2	67
Tuberculosis:														
Pos.	38	28	38	24	32	32	22	30	31	21	26	23	345	
Neg.	76	115	195	117	105	90	93	90	71	91	78	72	1193	
Unsat	3	6	6	2	4	7	3	3	1	2			37	1575
Typhoid:														
Pos.	27	43	26	32	40	60	49	38	20	22	21	13	391	
Neg.	63	91	116	92	118	189	190	220	186	145	166	105	1681	
Incomplete	2	7	6	6	7	9	6	8	7	9	1	2	70	2142
Para-Typhoid:														
Pos.				2									2	
Neg.	2	2	2	4		4	2	4	8	2	1		31	33
Urinalysis	14	17	11	9	11	10	19	12	8	17	14	17	159	159
	1498	835	952	772	823	983	880	1119	1131	2159	4020	1702	16874	16874

STATEMENT OF SPECIMENS EXAMINED
In the Central Laboratory, Jacksonville, Florida, 1915.
(Continued.)

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total	Grand Total
Water (for Sewage Contamination)	1498	835	952	772	823	983	880	1119	1131	2159	4020	1702	16874	16874
Pos.	25	24	51	76	66	132	68	64	28	27	15	9	585	
Neg.	40	22	20	49	27	118	39	57	16	14	17	7	426	
Doubtful	3	2	3		6								14	
Sanitary Chemical Analysis:														
Pos.				11	27	37	17	25	3				120	
Neg.	64	41	69	70	61	203	87	67	41	42	10		755	1900
Miscellaneous:														
Actinomyces							1						1	
Animal Inoculation	3	5	4	5	14	1	2		1			2	37	
Autogenous Vaccine		4	1	2	8	5	5	8	11	6	7	3	60	
Blood Count:														
Differential	5	7	11	13	8	7	11	22	18	25	12	10	149	
Plain	1	2	1	11		1			4		4		24	
Leprosy:														
Pos.					1	1		1					3	
Neg.							1		1				2	
Myiasis					1								1	
Ophthalmia: Neg.			1	2		1	1	2		3			10	
Pleural Fluid					1			1			3		5	
Spinal Fluid		1	1	1							1		4	
Spirochaeta														
Pallida				1	1		1	2	2	2	2		11	
Vincent's														
Angina	2	2	1			2			1	1	2		11	
Unclassified	11	20	28	194	69	91	24	81	25	24	35	14	616	934
	1652	965	1143	1207	1113	1582	1137	1449	1282	2303	4128	1747	19708	19708

DISTRIBUTION OF COMMUNICABLE DISEASES AS DIAG-
NOSED BY THE LABORATORIES OF THE STATE
BOARD OF HEALTH FOR THE YEAR 1915.

Town	Diphtheria	Gonorrhoea	Malaria	Typhoid	Tuberculosis	Animal Pa'tes	Rabies	Leprosy	Total
Alachua	1		1	8	2				12
Alton		1		5					6
Apalachicola				2	3				5
Apopka	2			1					3
Arcadia	1	2		4	4	1	1		13
Atlantic Beach			1						1
Auburndale						1			1
Aucilla						1	1		2
Avon Park	3			1		3			7
Bagdad					1				1
Baldwin				2					2
Bartow		3			2	13			18
Bay Harbor	1						1		2
Beulah	1								1
Blichton				1					1
Boca Grande					1				1
Bonifay			1						1
Bowling Green				1		4			5
Boynton				2					2
Bradentown	3	1	1	1	5	5			16
Brewster			1						1
Brooker		1			1				2
Brooksville		3			4				7
Buena Visto		1							1
Bunnell			3						3
Bushnell				5		1			6
Callahan	1			1					2
Campbellton	1				1	3			5
Campville			1			2			3
Carbur				1					1
Carrabelle				3					3
Cedar Key				2	1				3
Center Hill				4		6			10
Centralia		2							2
Chattahoochee			3	17	1				21
Chiefland	1	1		1	3	11			17
Chipley							1		1
Citra		1	2	1	1	3			8
Clermont		1		1		2			4
Cocoa					5	1			6
Coleman				1		1			2
Century	1					1			2
Conant					1				1
Cottage Hill					1				1
Cottondale							1		1
Crescent City				1		1			2
Crestview					1	8			9

DISTRIBUTION OF COMMUNICABLE DISEASES AS DIAG-
NOSED BY THE LABORATORIES OF THE STATE
BOARD OF HEALTH FOR THE YEAR 1915.

(Continued.)

Town	Diphtheria	Gonorrhoea	Malaria	Typhoid	Tuberculosis	Animal Pa'tes	Rabies	Leprosy	Total
Cross City						25			25
Crystal River				1					1
Clearwater		1		1	3	4			9
Dade City				7	1				8
Dania			1	1	1	3			6
Daytona	18	1	4	9	5	2			39
DeFuniak Springs	128	11		2	4	8			153
" Carrier Cases	32								32
DeLand			1	3	1	1			6
Delray			1	4	4				9
Detroit	1			2					3
Dowling Park		2							2
Dunnellon		4	1		2	7			14
Eau Gallie	1					2			3
Emerelda						2			2
Emporia					2				2
Enterprise						1			1
Escambia					1				1
Fairfield		1				1			2
Fellsmere		2			3	1			6
Fernandina	5	2		1					8
Fort Barrancas					2				2
Fort Drum					1				1
Fort Lauderdale					2				2
Fort Meade	4		3	1		2			10
Fort Myers			1	3		3			7
Fort Ogden	7	1		1					9
Fort Pierce	7	11		3	7	4			32
Freeport			1			1			2
Frostproof						1			1
Fulford					1	1			2
Gainesville	13	12	3	10	10	2	1		51
Gaiter						1			1
Garniers						1			1
Goulds				2	2	12			16
Grandin	4			1	1	2			8
Grand Island					1				1
Greensboro	1			2		7			10
Green Cove Springs	7	3	1	1	1				13
Greenville				1	1	1	1		4
Greenwood					2		1		3
Gretna						3			3
Groveland				3					3
Haines City					2				2
Hampton						1			1

DISTRIBUTION OF COMMUNICABLE DISEASES AS DIAG-
NOSED BY THE LABORATORIES OF THE STATE
BOARD OF HEALTH FOR THE YEAR 1915.

(Continued.)

Town	Diphtheria	Gonorrhoea	Malaria	Typhoid	Tuberculosis	Animal Pa'tes	Rabies	Leprosy	Total
Harris		1							1
Havana						2			2
Hawks Park		1							1
Hawthorne				1	2				3
High Springs		2	1		1	2	1		7
Hillard						1			1
Holts	1		1	2					4
Homestead	1			1					2
Inverness	12	3	3	1	1				20
Istachatta			1		1				2
Jacksonville	250	210	91	148	132	195	4		1030
" Carrier Cases	157								157
South Jacksonville	5	3	1		3	1			13
" Carrier Cases	60								60
Jasper	4	1	3	6	1	5			20
Jennings				1					1
Kathleen			1		1	2			4
Key West		13	1	4	5	3		4	30
Kissimmee	1			2	6	4			13
Klondyke					1				1
Labelle						3			3
Lake Butler		2		7	1	7			17
Lake City		2		4	2		1		9
Lakeland	6	1	1	6	9	5			28
Lake Magdalene	7								7
Lake Worth	2				1				3
Largo		1		1	1	10			13
Lawrel						1			1
Leesburg	2			2	7	8			19
Lemon City	1				2				3
Live Oak	2	4	2	11	4	2			25
Lloyd							1		1
Loretto						4			4
Lynn Haven						1			1
McCall						5			5
McDavid					1				1
McIntosh					2	2	1		5
Madison		3	1	3		1			8
Manatee					1	3			4
Mandarin		1	3			9			13
Marianna	1			1			1		3
Mascotte						5			5
Mayo				1	2	2			5
Mayport			1	3					4
Melbourne			2		3	1			6

DISTRIBUTION OF COMMUNICABLE DISEASES AS DIAG-
NOSED BY THE LABORATORIES OF THE STATE
BOARD OF HEALTH FOR THE YEAR 1915.

(Continued.)

Town	Diphtheria	Gonorrhoea	Malaria	Typhoid	Tuberculosis	Animal Pa'tes	Rabies	Leprosy	Total
Melrose	1			2					3
Meredith							1		1
Miami	11	28	6	23	26	3			97
Micanopy		1	1	1	3	18	1		25
Micosukee			1						1
Milton		2	6	6		1			15
Millville	2								2
Molino				1	1	1			3
Monticello	16			1	3		1		21
" Carrier Cases	27								27
Morrison						2			2
Mount Dora					3				3
Mulberry				6	1				7
Munson	1				3				4
Muscogee					1				1
Newberry				1		1	1		3
New Smyrna	6	6		3	1	10			26
" Carrier Cases	53								53
Nichols					2				2
Nocatee							1		1
North LeBelle						2			2
O'Brien					1				1
Ocala	3	1	2	3	9	45			63
Odessa				1	1				2
Ojus				1					1
Okeechobee	2	1	2		1	8			14
Oklawaha	2				1	4			7
Olive						1			1
Orlando		15	5	27	24	27			98
Osteen						1			1
Otter Creek	1		1		1				3
Oxford		1				4			5
Ozona	1		1		1				3
Palatka	1	1	2	3	2	1			10
Palmetto	1			3		3			7
Panama City	6	2		1		5			14
Panama Park				2		1			3
Pensacola	9	120	17	11	64	109			330
Perrine		1		2					3
Perry		2			1		2		5
Pinetta							1		1
Plant City	17	12	9	21	10	7			76
Ponce de Leon							2		2
Princeton						2			2
Punta Gorda		2		1	2	1			6

DISTRIBUTION OF COMMUNICABLE DISEASES AS DIAG-
NOSED BY THE LABORATORIES OF THE STATE
BOARD OF HEALTH FOR THE YEAR 1915.

(Continued.)

Town	Diphtheria	Gonorrhoea	Malaria	Typhoid	Tuberculosis	Animal Pa'tes	Rabies	Leprosy	Total
Quincy	4			10	1	18			33
Raiford				1					1
Reddick				1		1			2
River Junction	1	6	4	5	3	10			29
Roberts					1	1			2
Rock Bluff						1			1
St. Andrews	1				2	1			4
St. Augustine	3		4	13	7	12			39
St. Petersburg	2	5	2	8	9	7			33
San Antonio		2			1	3			6
Safety Harbor		2			1	3			7
Sanford	1	5	3	3	3	8			23
Sarasota	5	1		7	2	2			17
Sebastian						5			5
Sebring					1				1
Sharps					1	1			2
Silver Palm						2			2
Sisco					1				1
Sneads			2	2	1	10			15
Sorrento		2			1				3
Starke	2	2	1			2			7
Stuart					2				2
Summerfield						3			3
Sumner				1		2			3
Tallahassee	41	12	27	37	22	19	2		160
Tampa	86	96	40	89	149	189	4	1	654
Port Tampa				1	1				2
West Tampa	2	2	1		2	51			58
Tarpon Springs		1		1	2	2			6
Thonotassa	1								1
Titusville	21	5	7	2	1	3			39
"Carrier Cases	14								14
Trenton				1					1
Umatilla				1	1				2
Valrico					1				1
Viking						1			1
Wabasso						2			2
Wallace					1				1
Warrington			1						1
Wauchula	1			6	1	12			20
Webster						1			1
Welaka					1	1			2
Wellborn	1	1		2	4	9			17
West Palm Beach				2	3				5
Wewahitchka		1			1				2

DISTRIBUTION OF COMMUNICABLE DISEASES AS DIAG-
NOSED BY THE LABORATORIES OF THE STATE
BOARD OF HEALTH FOR THE YEAR 1915.

(Continued.)

Town	Diphtheria	Gonorrhoea	Malaria	Typhoid	Tuberculosis	Animal Pa'tes	Rabies	Leprosy	Total
White Springs					2				2
Wildwood	2	2			1	3			8
Williston	8			5		36			49
Wimauma				1					1
Winter Garden	1		2	3	3	1			10
Winter Haven		1		1	1	1			4
Worthington Springs					1	1	1		3
Zolfo					1				1
	1109	660	290	657	685	1136	36	5	4578

TOTAL NUMBER OF SPECIMENS EXAMINED IN THE LAB-
ORATORIES OF THE STATE BOARD OF HEALTH
OF FLORIDA, 1915.

Intestinal Parasites:		
Positive	1245	
Negative	2586	3831
Diphtheria:		
Swabs:		
Positive	205	
Negative	854	
Cutures:		
Positive	1936	
Negative	10007	13002
Gonorrhoea:		
Positive	698	
Negative	1182	1880
Malaria:		
Positive	307	
Negative	5169	5476
Pathological Specimens:		
Malignant	115	
Non-Malignant	138	253
Rabies:		
Positive	35	
Negative	52	87
Tuberculosis:		
Positive	727	
Negative	2673	3400
Typhoid:		
Positive	681	
Negative	4043	4724
Para-Typhoid:		
Positive	16	
Negative	69	85
Water (For Sewage Contamination)		
Bacteriological:		
Positive	839	
Negative	724	
Sanitary Chemical Analysis:		
Positive	120	
Negative	755	2438
Miscellaneous Examinations	4671	4671
	39847	39847

COMPARATIVE STATEMENT OF THE SIX PRINCIPAL DISEASES FOR WHICH EXAMINATIONS
HAVE BEEN MADE IN THE LABORATORIES FROM 1910 TO 1915.

	Jacksonville	Tampa	Pensacola	Miami	Tallahassee	Total
Diphtheria:						
1910: Total Ex.	389	147	22			568
1910: Pos. Ex.	113	35	13			161
1911: Total Ex.	389	344	99			832
1911: Pos. Ex.	111	75	23			209
1912: Total Ex.	890	649	113			1652
1912: Pos. Ex.	310	223	38			571
1913: Total Ex.	4224	1075	680			5979
1913: Pos. Ex.	694	303	107			1104
1914: Total Ex.	3646	1384	623			5653
1914: Pos. Ex.	487	331	95			913
1915: Total Ex.	7871	1574	1635	38	1541	13002
1915: Pos. Ex.	1271	332	101		194	1936
						27686
Malaria:						
1910: Total Ex.	1540	935	54			2529
1910: Pos. Ex.	307	309	8			624
1911: Total Ex.	1631	3361	232			5224
1911: Pos. Ex.	151	1086	29			1266
1912: Total Ex.	2058	2804	290			5152
1912: Pos. Ex.	318	592	22			932
1913: Total Ex.	2329	2901	377			5607
1913: Pos. Ex.	256	203	42			501
1914: Total Ex.	2325	2616	468			5409
1914: Pos. Ex.	140	103	35			278
1915: Total Ex.	2278	1926	468	6	587	5476
1915: Pos. Ex.	176	51	38	217	36	307
						29397
Typhoid:						
1910: Total Ex.	1484	440	14			1938
1910: Pos. Ex.	439	100	3			542
1911: Total Ex.	1305	1571	199			3075
1911: Pos. Ex.	278	288	60			626
1912: Total Ex.	1433	1339	188			2960
1912: Pos. Ex.	207	234	49			490
1913: Total Ex.	1655	1494	241			3390
1913: Pos. Ex.	301	267	36			604
1914: Total Ex.	2199	1939	442			4580
1914: Pos. Ex.	573	313	79			965
1915: Total Ex.	2142	1549	410	197	426	4724
1915: Pos. Ex.	391	147	24	40	79	681
						20667
						3908

COMPARATIVE STATEMENT OF THE SIX PRINCIPAL DISEASES FOR WHICH EXAMINATIONS HAVE BEEN MADE IN THE LABORATORIES* FROM 1910 TO 1915.—(Continued).

		Jacksonville	Tampa	Pensacola	Miami	Tallahassee	Total
Tuberculosis:							
1910:	Total Ex.	1059	425	31	5	---	1515
	Pos. Ex.	254	126	---	---	---	385
1911:	Total Ex.	1134	874	233	67	---	2241
	Pos. Ex.	338	253	311	---	---	612
1912:	Total Ex.	1325	790	311	85	---	2426
	Pos. Ex.	1671	897	396	108	---	2964
1913:	Total Ex.	1672	1022	372	87	---	3066
	Pos. Ex.	1575	978	472	212	163	744
1914:	Total Ex.	---	209	99	44	---	3400
	Pos. Ex.	---	---	---	---	---	727
Corynebacteria:							
1910:	Total Ex.	420	156	29	12	---	15612
	Pos. Ex.	174	69	---	---	---	605
1911:	Total Ex.	432	283	120	52	---	835
	Pos. Ex.	399	144	221	97	---	906
1912:	Total Ex.	437	422	410	127	---	1269
	Pos. Ex.	671	485	421	132	---	1577
1913:	Total Ex.	750	504	475	90	61	1880
	Pos. Ex.	---	---	---	---	---	698
1914:	Total Ex.	---	---	---	---	---	---
	Pos. Ex.	---	---	---	---	---	---
1915:	Total Ex.	---	---	---	---	---	---
	Pos. Ex.	---	---	---	---	---	---
Intestinal Parasites:							
1910:	Total Ex.	6226	999	183	90	---	7072
	Pos. Ex.	3578	474	---	---	---	7408
1911:	Total Ex.	4078	1091	760	250	---	5929
	Pos. Ex.	3064	691	1239	766	---	4994
1912:	Total Ex.	2343	1105	370	123	---	3818
	Pos. Ex.	3145	1481	453	210	---	5079
1913:	Total Ex.	1901	1255	422	169	153	3831
	Pos. Ex.	651	339	---	---	---	1245

* Key West Laboratory records available for 1915 only

* Key West Laboratory records available for 1915 only

TABLE SHOWING PERSONNEL OF CENTRAL LABORATORY AND ACTUAL SERVICE TIME IN LABORATORY

[illegible]

TABLE SHOWING PERSONNEL OF ACTUAL SERVICE TIME CENTRAL LABORATORY AND IN LABORATORY (Continued.)

NAME and POSITION	Aug.	Sept.	Oct.	Nov.	Dec.	Total Months
HENRY HANSON, M. D. Senior Bacteriologist and Director of Central Laboratory	*	On leave 29 days	Chattahoo- chee, Pan- ama City, Defuniak Springs, Columbia, S. C., 8 days	*	Urban, Ill., Am. Society Bacteriolo- gists 6 days	10 1-3
J. W. DENTON, M. D. 1st Assistant, Central Laboratory	N	N	N	N	*	6 1-2
W. D. HAYES Assistant Bacteriologist and Chem- ist, Central Laboratory	*	*	N	N	N	8 2-3
J. R. BEAN, M. D. Assistant Central Laboratory and Detail Assistant	*	*	*	*	M I a m I	6
O. O. FISHER, B. A. 2nd Assistant Bacteriologist	*	*	*	*	*	5 2-3
HOMER D. VENTERS, B. S. 3rd Assistant Bacteriologist	N	N	N	*	*	2
HENRY P. BROWN Sanitary Patrolman and Assistant, Central Laboratory	*	*	*	*	On I e a v e	8
MRS PEARL GRIFFITH Stenographer	*	*	*	On leave 20 days	On leave 10 days	47 1-6
TRUSCOCK, COPP, Technician and Chief Shipping Department	*	*	*	*	*	11
EAROLD BENEDEDEE Laboratory Helper	*	*	*	*	*	12
DAN GRAHAM Gen'l Helper, Wash. Room	v	N	N	N	*	12
This gives the Central Laboratory theoretically 3.93 bacteriologists' full time for the year. There were 19,708 specimens examined, giving an average of 5014.7 examinations per man for the year 1915. * In service Central Laboratory, except as indicated. X Indicates not in service.						1 1-2

REPORT OF DR. H. R. MILLS,
Bacteriologist, Tampa Laboratory.

Tampa, Fla., January 1, 1916.

Dr. Joseph Y. Porter,

State Health Officer,

Jacksonville, Fla.

Dear Doctor: I have submitted to you a tabulated record of the number and nature of specimens examined in the Tampa Laboratory during 1915 listed by months, together with a list of the positive diagnoses made during the year for the various towns in our section of the State.

The record shows a slight decrease in the total number of specimens during 1915 as compared to the previous year. Most of this decrease is in the rat plague and malaria specimens due in the former case to the fact that the rat extermination work was abandoned by the city in September and no more specimens of this nature were submitted to the Laboratory for examination. In the case of malaria specimens, the decrease must be due, in part at least, to the fact that malaria is far less common in Tampa than it formerly was. One prominent physician of Tampa told me a few weeks ago, upon the occasion of our finding a positive malaria for him, that this was the first case of malaria he had seen for two years, either clinically or microscopically; and that he was becoming more and more aware of the fact that malaria is a comparatively rare disease in Tampa. During 1915 we found only thirty-nine positive specimens of malaria for Tampa or only 2 per cent of the total number of blood smears examined, as compared to seventy-one cases in 1914 which was 3.3 per cent of all the blood smears examined; and during the last three months of 1913, when we began keeping records of positive diagnoses by towns, 6 per cent of the total number of malaria examinations made were positive for Tampa. I think that these comparisons tend to show, therefore, a decrease of this disease in Tampa.

All the members of the laboratory force have had much to do during the year in performing the special duties assigned to them. In addition to much of the general microscopic and diagnostic work, Dr. Birge, Asst. Bacteriologist, has had the entire charge of the examination of water

for bacterial pollution, and he also gave one evening a week of his spare time in giving a lecture course in bacteriology to the nurses at the Gordon Keller Memorial Hospital and of the Plant Park Infirmary. Mr. Chas. DeArmas, Sanitary patrolman of Hillsborough County, who, in addition to his outside duties devotes a large share of his time to the laboratory, makes nearly all the feces examinations for intestinal parasites, attends to the shipping out of specimen containers to the out of town doctors, and prepares all the media and stains for our work, the preparation of which requires much time and technical skill. The keeping of the daily records, reporting the results of examinations to physicians, making daily, weekly, monthly and annual reports to the State Health Officer, and the general correspondence, are entrusted to the stenographer, Miss Mary Valdespino, who also acts in the capacity of interpreter of foreign languages and as stenographer for Dr. C. W. Bartlett, Asst. to the State Health Officer. The management of the business of the laboratory which involves the payment of minor expenditures averaging about \$75.00 a month, making requisitions for supplies, and the general upkeep and repair work about the laboratory, in addition to part of the microscopic and diagnostic work, falls to the Bacteriologist, who also handles all the pathological work; and twice during the year was called to serve as expert witness, once in a murder case where the chemical and microscopical analysis of blood was a crucial point, and the other in a divorce case where the positive identification of gonococci by morphology and culture was essential. In both cases the testimony was accepted as conclusive. "Bob" takes pride in keeping the State Board of Health building in a model condition of cleanliness and sanitation. We are trying to make the laboratory as efficient as possible and a feature which is especially appreciated by the physicians of Tampa is our offer to come to the laboratory outside of hours at any time of night to "plant" diphtheria specimens; each of us having a telephone at home, so that we can respond to the frequent requests of this nature.

Most of our microscopic work consists of either confirming or refuting clinical diagnoses which have been made by the physician submitting the specimen, but that which affords the laboratory diagnostician the greatest sense of satisfaction and feeling that he has been of real service to

the profession, is the making of unexpected diagnosis or the positive identification of a disease which was not suspected by the clinician. In the majority of cases these surprises occur in the examination of blood smears for malaria where no malaria is found, but, on the contrary, an increase in the eosinophiles is noted, often leading ultimately to the diagnosis of hookworm; or the finding of a leucocytosis indicating an inflammatory condition such as appendicitis. There are two cases of unexpected diagnosis which were exceptionally interesting and are of sufficient importance to report in detail. One was the case of Mr. A. who was suffering from supposed gonorrheal ophthalmia, the patient coming to the laboratory in person in order that the clinical diagnosis might be confirmed by the microscope. Instead of finding gonococci however, the microscopist was confronted by organisms resembling diphtheria. As it is very difficult to identify diphtheria bacilli by examining the original material in this way, cultural methods and an animal inoculation were resorted to, to prove the identity of the organism beyond a shadow of doubt. Accordingly the purulent material from the eye was inoculated on Loeffler's blood serum which, after fifteen hours, presented typical diphtheria bacilli. Transfers were then made to plain broth and litmus lactose broth, both media developing in due time the characteristics of diphtheria in culture. One cubic centimeter of a forty-eight hour broth culture was inoculated subcutaneously into a guinea pig which died on the 3rd day with all the local and general symptoms of diphtheria. On autopsy the guinea pig presented the characteristic diphtheritic lesions of the local lymph nodes, the adrenals, the pleural fluid, and the skin at the site of inoculation. Finally typical diphtheria bacilli were recovered from these lessons. Mr. A. was promptly given diphtheria antitoxin whereupon his local and general symptoms quickly subsided. The other case was that of Mr. B. to whose bedside one of us was called to make a white and differential blood count in a suspected case of abscess of liver, the patient complaining principally of backache and general weakness. Instead however we made a diagnosis of cancer by the microscopic examination of blood. The points which lead to this unusual method of diagnosing malignancy were a leucocytosis of 13,200 with a high percentage of polymorphonuclears, 10,000 nucleated red cells to the cubic millimeter with the

normoblasts predominating over the megloblasts in the proportion of 40 to 1, later a red cell count of 1,500,000, hemoglobin in 45 percent, color index 3-2, poikilocytosis and irregularity in the staining of the red blood cells. Of course, liver abscess was ruled out at once, and pernicious malaria excluded on account of the leucocytosis, the large number of nucleated reds and the comparatively few megloblasts; and the diagnosis of malignancy was made. A subsequent examination of the patient's feces revealed blood, and the probable location of the cancer was given as the stomach. In three days Mr. B. died. There were several physicians consulted, the clinical diagnoses ranging from tuberculosis to rheumatism. Autopsy revealed a tumor of the stomach which upon sectioning and microscopic examination presented the typical features of medullary carcinoma.

During the month of December the Bacteriologist was given the opportunity of going to Washington, D. C., without pay, for the purpose of studying in the Hygienic Laboratory. While there many ideas were gained which will be useful in increasing the efficiency of the laboratory.

In March the former Asst. Bacteriologist Dr. Wm. L. Holt resigned, and Dr. E. G. Birge, former instructor in Preventive Medicine and Hygiene in Harvard Medical School, was employed to fill the position as Assistant Bacteriologist.

Respectfully submitted,

HERBERT R. MILLS.

Bacteriologist.

STATEMENT OF SPECIMENS EXAMINED IN THE LABORATORY DURING 1915.

MATTER Ex.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total	Grand Total
Animal Parasites,														
Hookworms,														
Pos. -----	12	10	19	12	14	14	15	1	12	8	11	19	157	
Neg. -----	54	50	62	54	75	74	77	91	57	73	69	55	791	
Unfit -----														
Amoeba														
Pos. -----		2	1	2	2	3	1	1	1	1			14	
Neg. -----	4	2	7	10	16	13	18	10	7	7	19	6	119	
Doubtful -----				1				1	2		2		6	
Ascaris	1	4	3	6	6	7	6	10	4	10	4	4	65	
Lambliæ					1	2	1	1			3		8	
Oxyuris			1										1	
Tapeworm	3	3		2			5					1	17	
Trichiuris	1	5	4	4	9	7	6	12	10	4	6	9	77	1255
Diphtheria														
Swabs, Pos.	4	5	1	1	1		1	1	1		2	6	23	
Neg. -----	5	6	16	7	9		3	9	11	10	10	8	94	
Doubtful -----							1		1	1	1	2	6	
Cultures,														
Pos. -----	37	29	14	5	1	5	2	5	18	41	170		332	
Neg. -----	106	294	118	53	45	25	39	38	65	59	186	73	1101	
Doubtful -----	1	4	1	1			1		2	2	5	1	18	1574
Gonorrhœa,														
Pos. -----	19	12	9	11	15	9	10	11	9	17	6	16	144	
Neg. -----	29	35	32	37	20	27	34	34	19	33	26	31	357	
Doubtful -----			2		1								3	504
Malaria,														
Pos. -----	3	3	2	1	4	5	4	6	7	11	5		51	
Neg. -----	167	188	88	171	153	170	197	158	141	162	168	104	1867	
Unfit -----								1	1	1	3	2	8	1926
Pathological,														
Malig. -----	3	1		2	2	3	1		7	11	3	2	35	
Non-Malig. -----	8	2		3	11	5	13	5	5	6	18	5	81	
Unfit -----							2			1			3	119
Rabies, Dogs														
Pos. -----	1				1	1							3	
Neg. -----				1	1	1							3	
Cats, Pos.	1												1	
Neg. -----										1			1	8
Typhoid Fever														
Pos. -----	12	18	25	9	12	13	12	9	11	11	10	5	147	
Neg. -----	116	142	124	130	98	95	122	98	106	112	98	80	1321	
Incomplete Reaction														
Tuberculosis	4	6	14	3	7	7	7	2	5	10	7	9	81	1549
Pos. -----	11	18	5	17	26	17	8	20	21	23	24	19	209	
Neg. -----	58	62	31	82	75	72	70	59	65	59	75	61	769	978
Water, Pos.	2	2		1	12	4	5	2					28	
Neg. -----	7	11	2	1	17	23	16	20	16	4	2	6	125	158
Doubtful -----					1		3	1					5	
Ophthalmia														
Pos. -----	1									2	3	3	9	
Neg. -----				2	2		1			4	8	4	21	
Doubtful -----					1								1	31
Blood Counts														
Diff. -----	2	7	3	5	2	3	6	6	10	21	6	6	77	
Plain -----	3	4	2	3	1	1	2	6	5	8	6	2	43	120
Miscellaneous														
Animal Inoc;														
T. B. Pos.														
Neg. -----						1		1		2			4	
Rabies, Pos.	1												1	
Neg. -----				2	2	1	1						6	
Doubtful -----					1								1	
Diphtheria														
Neg. -----		1											1	

STATEMENT OF SPECIMENS EXAMINED IN THE LABORATORY DURING 1915.—(Continued.)

MATTER Ex.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total	Grand Total
Doubtful		3											3	
Spinal Fluid			1										1	
Diazo: Pos.	2	1	1	1	1	2	2				3		13	
Neg.	2	2	8	4	2	3	2	4	3	3			36	
Leprosy: Pos.		1											1	
Neg.				1					1				2	
Urine Analy's	3	11	11	5	10	28	16	16	11	28	29	28	196	
Pus. Specim'ns	2	4	6	2	6		3	1				2	26	
Gauze Ster'z'd	1												1	
Rats Exam.	115	26	64	141	175	267	233	264	240				1,525	
Spinal Fluid		1	1		1			1					4	
Vin. Angina		1											2	
B. Coll.			2										2	
M. Catarrhalis			2										2	
Actinomyco's				2									2	
Hogs' Lungs														
T. B.				1									1	
Sprue.						2							2	
Milk Exam.							1	2					3	
Spoiled Meat							1						1	
Faeces Ex.														
for fat							2						2	
M'x'd cow feed								1					1	
Staphylococcus								1		4	1		6	
Streptococcus								1	3				4	
Bread cult.								1					1	
Flour cult.								1					1	
Stools for b'd									2	1	2	1	6	
Fungus									1				1	
Pus cultures									1		4		5	
Black Tongue									1		1		2	
Tick fever										1			1	
B. Malg Edema										2			2	
Blood Cult										1			1	
Sputum for														
Eosinophi-														
les & Cush-										2			2	
man Spirals														
B. Welchii											1		1	
Acidosis											1		1	
Strychnine									1				1	1,878
	801	976	682	796	839	911	950	926	870	734	875	740	10,100	10,100

TABLE OF SPECIMENS EXAMINED SHOWING NUMBER OF POSITIVES RECEIVED FROM VARIOUS TOWNS OF THE STATE DURING 1915.

LABORATORY, STATE BOARD OF HEALTH, TAMPA, FLORIDA.

Tampa	814	Mulberry	7
Plant City	41	Ft. Ogden	2
Wauchula	11	Arcadia	6
West Tampa	62	Funta Gorda	4
Fort Myers	7	Brooksville	3
Fort Meade	9	Avon Park	7
Dade City	4	Eoca Grande	1
Sarasota	7	Oxford	1
Thonotosassa	1	Bartow	4
Largo	8	Bushnell	1
Palmetto	6	Kathleen	1
Tarpon Springs	6	Winter Haven	4
Lakeland	20	Centralia	1
Bradentown	4	Bowling Green	1
St. Petersburg	16	Lake Magdelene	15
Manatee	4	Odessa	4
Safety Harbor	8	Wimauma	1
Clearwater	9	Zolfo	1
Port Tampa	3	Valrico	1
Auburndale	1		
Carried forward	1082	Total	1106

REPORT OF DR. F. A. BRINK

Bacteriologist, Pensacola Laboratory.

Pensacola, Fla., January 1st, 1916.

Dr. Jos. Y. Porter, State Health Officer,

(Thru Dr. Henry Hanson, Senior Bacteriologist,)

Jacksonville, Florida.

Dear Doctor:

Inclosed herewith is a tabulated report of the specimens examined in the Pensacola Laboratory during the past year.

To the mind of the writer this report indicates a steady and continued progress in the work of the laboratory and in the number of specimens examined. The total number of specimens examined in 1914 is a seeming exception to that idea, but it is to be noted that there were a large number of rats examined in 1914, and this did not involve as much work per specimen as does the usual run of what might be called regular specimens.

The work of the past has been entirely regular, unless we except quite a number of diphtheria cultures which were made in connection with the DeFuniak survey.

Another significant thing, which indicates to the writer the progressive advance of the laboratory noticeable is the increased effort required to carry on the work of the place.

The new building has proven a much more agreeable place to work in, the advantage being particularly noticable in the matter of light and ventilation. The surroundings, too, are more quiet and agreeable.

There is one thing that might well be mentioned here in the way of a suggestion for improvement, that is in the floor for the two working rooms. As is well known, they are now of cement, and are dusting considerably. The contractor says he expects to relay the floor, and if tile is decided upon, it can be done now as cheaply as could have been done originally, on account of the fact that the cement has to be replaced anyway. It is the opinion of the writer that tile is the only kind of flooring that will prove permanently satisfactory in these two rooms, that the cost would not be great in comparison to the serviceability, and that it

REPORT OF DR. J. Y. PORTER, JR.

Ass't to the State Health Officer, Key West Laboratory

STATEMENT OF SPECIMENS EXAMINED.

In the Key West Laboratory, Key West, Florida, 1915.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total	Grand Total
Animal Parasites:														
Hookworm:														
Neg.	3	1	1	1	2	1	1	2			1	1	14	
Amoeba					2								2	
Ascaris				6		2		1		2			11	
Trichocephalus					2		1				1	1	5	32
Diphtheria:														
Swabs:														
Neg.	2	1	1	5				1		1	4		15	
Cultures:														
Neg.	2	1	1	5				1		1	5	5	21	36
Gonorrhoea:														
Pos.	1		4	1			1	4		1	1	2	15	
Neg.					1	1	1	2		1			6	
Unfit					1								1	22
Malaria:							1						1	
Pos.	2	1	2	3	1		1			2	1	1	14	
Neg.														
Unsatisfactory			1										1	16
Tuberculosis:														
Pos.								3					3	
Neg.		1	1	1	1	1	2			2		1	10	13
Typhoid														
Fever:														
Pos. Widal					2	1		1					4	
Neg. Widal		3		1		2	2						8	12
Water: (Sewage contamination)														
Pos.								3		1	3		7	
Neg.							1			1		1	3	10
Miscellaneous														
Animal Inoculations											1		1	
Blood Counts														
Diff.	1	2	1			2	1						7	
Leprosy:														
Pos.								1					1	
Ophthalmia														
Neg.					1								1	
Urinary														
Analyses:														
Rats: for														
Plague:														
Neg.	128	161	141	128	110							3	543	
Human, for														
Plague:							1				1		2	
Neg.											1		1	
Amoeba B.														
Pig. for														
Plague:											1		1	
Neg.														
Endamoeba B.						3							3	
Tubercle														
Bacilli					1								1	
Microsporion														
trichophyton:														
Pos.				1									1	690
	139	171	154	153	123	14	12	18		12	20	15	831	831

REPORT OF DR. IVA C. YOUMANS

Bacteriologist, Miami Laboratory.

Miami, Fla., January 1st, 1916.

Dr. Joseph Y. Porter, State Health Officer,

Through Dr. Henry Hanson, Senior Bacteriologist,

State Board of Health,

Jacksonville, Florida.

Dear Doctor:

Enclosed is report of work done in the Miami Laboratory since its opening the latter part of the year 1914 up to January 1st, 1916. During the month of November, 1914, only a few specimens were examined because of the incomplete installation of equipment. The month of December, 1914, marks the beginning of systematic work in the laboratory.

The character of specimens examined has been similar to that done in the other laboratories with a few exceptions.

1. The conspicuous absence of rabies work. This seems to be due to absence of the disease in this section of the State, as no history has been obtained of its incidence here.

2. The large percentage of water analyses made in the laboratory. It is a noteworthy fact that a large percentage of these samples shows evidence of sewage contamination, especially when all account of contamination from improper containers is eliminated—no specimens were examined unless submitted in properly sterilized receptacles. This high ratio of contaminated waters is evident in samples submitted from rural and suburban districts as well as from the City supply. The peculiar geological structure of this part of the State I believe to be in a large measure responsible for this condition. The porous coral rock formation acts as a less efficient filter than does the sand of other sections. The laboratory has been a valuable aid to the City Board of Health and to the Miami Water Company in working out the problems of securing for the City a clean water supply.

3. The large number of milk examinations handled by the laboratory. Many of these might not properly be considered within the scope of the work of the laboratory,

but until such time that the increase in State work makes such restrictions necessary it seems well that the laboratory should serve the public in this capacity, especially since many of these specimens are submitted through the City Board of Health, which organization has been so strong in its support of the State Laboratory here. The method pursued in the bacteriological examination of milk is patterned somewhat after that used in the laboratory of the District of Columbia in Washington. However, in addition to their use of Endo's media in the isolation and detection of colon bacilli in milk we also run control fermentation tests in lactose broth. In a number of instances we have found milk to show a low total bacteria count (on plain agar plates) while the percentage of colon bacteria was high—this we consider indicative of uncleanness. In the great majority of instances, however, the presence of colon in milk is coincident with a high bacterial count.

A few points should be mentioned bearing on the laboratory work and the equipment. The number of water and milk samples examined calls for large quantities of culture media and glassware. Much time is required in preparation of these items and the deterioration of the glassware, because of repeated sterilization, makes necessary frequent requisitions for this commodity.

A glance at the tabulated report will show that the laboratory is not patronized as it should be by all of the district which it should cover. It is true that there is a steady increase in the extent of this field but it is also true that physicians do not always patronize the laboratory located nearest them. The congestion of work in the Central Laboratory at times when work here was light argues strongly in favor of this point.

One fact in connection with laboratory work should be more fully emphasized, especially where the more recent patrons are concerned, namely, the value which should be attached to reports sent out by the laboratory. Too often the practitioner takes as final a negative report. In these cases the laboratory may prove a mence rather than a help. A negative result may be attributed to one or more of many causes, which I will not take space here to enumerate, and the practitioner should be warned against placing absolute reliance upon such reports. As a general rule a positive report from a laboratory should be absolutely diagnostic of at

least one condition in a patient, examples of this are malaria, tuberculosis, rabies, gonorrhoea, diphtheria, intestinal parasites, meningitis. Here one point might be taken as an exception, that is, the diagnosis of contamination in water for contamination diagnosed in the laboratory may rise from other sources than that from which the water is taken when sufficient care is not paid to the collection of the specimen.

On the other hand it should be well understood that a negative report can not be relied upon completely; several examinations should be made in suspicious cases. As an instance of this might be mentioned the recent finding of numerous tubercle bacilli in a certain sputum, specimens from the same patient only a short time before had repeatedly proven negative. On several occasions a tentative diagnosis of hookworm infection has been made from the blood-picture when the ova of the parasite were extremely difficult to find in the stools, proper treatment later has left no doubt as to diagnosis.

In closing mention should be made of the courtesy of Mr. Burdine, in whose building the laboratory is located, for his readiness in making the rooms comfortable and attractive. To the City Board of Health are due thanks for their hearty co-operation. I wish also to thank those in the Executive Office and in the Central Laboratory for their kindness to us while we were yet in our infancy.

Respectfully submitted,

IVA C. YOUMANS,

Bacteriologist.

SPECIMENS EXAMINED, MIAMI LABORATORY, YEAR 1915.

		Bro't forward	January	February	March	April	May	June	July	August	September	October	November	December	Total	Grand Total
Hookworm	P	1	5	4	1	5	2	3	3	6	11	4	2	2	28	
"	N														64	
"	U						1								1	
Oxyuris								1						1	2	
Ascaris														1	1	
Trichiuris														1	1	
Amoeba	N	2	1											1	3	100
Diph.	S.	17	8	3	1	1								1	9	
"	S.	17	8	4	5	6		1	1		2	3	32	16	95	
Diph.	C.	1	1	1										2	4	
"	C.	17	9	3	4	1					3		20	4	38	
"	C.	17	9	7	6	7		1	1		3	3	162	17	233	381
Gon.	P	5	7	3	4	5	4	2		2		4	2		38	
"	N	6	4	4	10	1	5	2	2	5	2	5	1		49	
"	N					2	1								3	90
Malaria	P			1		1		2		1		1			6	
"	N	17	17	12	21	14	13	7	18	19	17	19	12	25	211	217
Tuberculosis	P	6	4	4	4	3	2	1	4	6	1	1	3	5	44	
"	N	15	9	11	15	22	8	9	7	8	13	11	21	16	165	
"	N						2			1					3	212
Widals	P	4	4	7	5	3	4	1	1	2	1	1	1	6	40	
"	N	6	10	10	12	9	12	7	14	13	10	11	9	14	137	
"	Inc.		1	1	6	1				2	5	1	2	1	20	197
Water	P		11		33	8	7	31	14	12	11	2	8	23	160	
"	N		5		29	12	5	4	24	11	2	7	13	10	122	282
Milk		13	18	29	41	51	79	53	93	78	107	88	62	64	776	776
Urine		8		9	6	3	2	4	5	1				2	42	42
Differential		3	1							1	1	1		3	10	
Blood Count		4										2	2	2	14	24
Unclassified		17	3	34	4		2	3	1	2	5		3		74	74
Total		142	122	149	213	151	152	134	188	180	196	171	366	231	2395	2395

TOWNS	Positive Specimens	Total Specimens
Miami	118	1900
New Smyrna	8	121
Eau Gallie	3	59
Lemon City	3	92
Perrine	4	38
Dania	6	27
Homestead	3	26
West Palm Beach		26
Princeton	4	18
Goulds	16	17
Lake Worth	1	14
Beuna Vista	1	10
Ft. Lauderdale	2	8
Manderin	2	7
Ocean Beach		5
Key West		4
Ft. Pierce		4
Jacksonville		4
Hallandale		2
Marathon		2
Larkin		2

TOWNS	Positive Specimens	Total Specimens
Cocoanut Grove	---	2
Cudjce	---	1
Central Supply	---	1
Jensen	---	1
Islans Rada	---	1
* Ojus	1	---
* Detroit	3	---
* Fulford	2	---
* Loretta	4	---
* Boynton	2	---
* Silver Palm	2	---
** No data	---	4
	185	2395

* Specimens sent in by physicians located elsewhere.

** Postmark not determined.

REPORT OF DR. W. A. CLAXTON

Bacteriologist, Tallahassee Laboratory

TOTAL NUMBER OF SPECIMENS EXAMINED IN THE TALLAHASSEE LABORATORY. YEAR 1915.

Nature of Specimens	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total	Grand Total
Animal Parasites														
Hookworm														
Pos.	1	19		1	6	8	3	2	4	2	3	1	50	
Neg.	4	30	5	4	6	5	13	9	9	2	6	4	97	
Unfit		1											2	
Ascaris			1				1					1	3	
Oxyuris								1					1	
Diphtheria													1	153
Swabs: Pos.		2		2			3	3	7	8			25	
Neg.	6	2	3	4	4	2	6	12	9	12	19	14	93	
Doubtful		1	1	1								1	4	
Cultures														
Pos.	17	12	2	6	10		2	15	7	62	45	16	194	
Neg.	44	26	12	47	34	5	4	34	11	484	395	122	1218	
Doubtful				2	2						3		7	1541
Gonorrhoea.														
Pos.	1	2	1		1	1	4	1	3	1	5	3	23	
Neg.		2	2	1	3	7	3	1	4	4	1	6	34	
Doubtful														
Unfit						2					1		4	61
Malaria														
Pos.				2		7	1	7	7	9	1	2	36	
Neg.	15	11	30	18	38	39	64	140	43	38	43	69	548	
Unsatisfactory smears							2		1				3	587
Para Typhoid														
A. Pos.														
A. Neg.							14	9					23	23
B. Pos.							10	1	2	1			14	
B. Neg.							4	7	3				14	
Inc.								1					1	29
Rabies Dogs														
Pos.						1						1	2	
Neg.				1		2	1						4	
Rabies Cows														
Pos.								1					1	7
Anthrax														
Pos.														
Swabs.														
Neg.														
Swabs														
Pos. Cul-							2						2	
tures.														
Neg. Cul-							1	4					5	
tures														
Tuberculosis							3						3	10
Pos.	5	1	3	2			3		5	4	2	5	30	
Neg.	6	7	7	10	8	8	7	6	5	5	10	54	133	
Doubtful														163
Typhoid														
Fever														
Pos. Wi-														
dal	3	4	2		5	13	11	22	4	5	6	4	79	
Neg. Wi-														
dal	11	8	13	15	14	22	48	105	28	23	20	21	326	
Incomplete														
Agglutina-														
tion		1		1	1	1	2	12		1	2		21	426
Water.														
Pos.			4				5	2	2	2	1		16	
Neg.		1		1	1	6	4	4	2	2			21	37

TOTAL NUMBER OF SPECIMENS EXAMINED IN THE TALLAHASSEE LABORATORY. YEAR 1915. (Continued.)

Nature of Specimens.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total	Grand Total
Vincent's														
Angina									1				1	1
Animal Inoc-							2			1			3	3
ulations														
Blood Counts														
Differential	5	1	3	4	3	4	28	4	4	3	7	6	72	80
Plain			1	2	2	2	1						8	
Milk														
Pos.		5	5	4	4	2	6	2				1	29	29
Stomach Con-														
tents		1	1	2		1						1	6	6
Texas Fever														
Pos.					1	1							2	
Neg.						4			2				6	8
Urinary An-														
alyses	2	9	2	3	7	5	13	12	13	10	11		87	87
Pleural Fluid	2		2										4	4
Vaccines		1	1							3	1		6	6
Miscellaneous		1	1	4	3	2	4	1	1	1	2		20	20
	122	148	102	137	152	150	272	417	170	685	593	332	3281	3281

STATE BOARD OF HEALTH. DISTRIBUTION OF DISEASES AS
DIAGNOSED BY THE LABORATORY. YEAR 1915.

TOWN	Diphtheria	Gonorrhoea	Etioloautumnae	Quartan	Tertian	Species not Determined	Typhoid	Tuberculosis	Uncinaria	Ascariis	Oxyuris	Rabies	Para B.	Texas Fever	Anthrax	Total
Tallahassee	66	14	20		7		41	26	19	2	1	2	2	2	3	215
River Junction	2	10	1		2		3	1	6				2			27
Apalachicola							2									2
Marianna							1									1
Quincy	3						11									14
DeFuniak Spgs.	51															51
Greensboro	1						2		7							10
Havana	1								1							2
Chattahoochee			2				19	1								22
Monticello	60						1	1			2					64
Miccosukee			2													2
Carrabelle							1									1
Total	184	24	25		9		81	29	33	2	1	4	14	2	3	411

SPECIMENS SENT TO LABORATORY FOR EXAMINATION
CLASSIFIED BY TOWNS.

Tallahassee	1352
Monticello	687
DeFuniak	391
Chattahoochee	348
River Junction	145
Quincy	139
Chaires	111
Greensboro	35
Havana	20
Apalachicola	20
Miccosukee	7
Marianna	4
Wewahitchka	4
Bagdad	4
Panama City	4
Bonifay	2
Wildwood	2
Carrabelle	2
Bloxham	1
Greenville	1
Trenton	1
Daytona	1
Capitola	1

VETERINARY DEPARTMENT
REPORTS OF

DR. CHARLES F. DAWSON,
Veterinarian.

DR. W. A. MUNSELL,
Assistant Veterinarian

DR. J. W. DEMILLY,
Assistant Veterinarian

REPORT OF VETERINARY DIVISION.

Jacksonville, Florida, Jan. 1, 1915.

Dr. Joseph Y. Porter,
State Health Officer,
Jacksonville, Florida.

Dear Doctor:—I have the honor to present the annual report of the Veterinary Division for 1915, which consists of the reports of the Veterinarian, 1st Assistant Veterinarian, and the 2nd Assistant Veterinarian. These are respectfully presented for publication as a part of the Annual Report of the State Health Officer for 1915.

The routine office work increased to such an extent that it became necessary to have efficient clerical assistance, and your appointment of Miss Hazel Williams as stenographer and clerk has made it possible to give prompter attention to details connected with correspondence and the distribution of hog-cholera serum.

As in 1913, and in 1914, Dr. J. W. DeMilly, 2nd Assistant Veterinarian, was given leave of absence to pursue his studies for obtaining the veterinary degree. As there was no appointment made to fill the vacancy the extra work devolved upon the remaining force. Fortunately no outbreaks of a serious nature occurred in the territory usually covered by him.

Thirty-six articles on Veterinary subjects were contributed to "Health Notes," some of which were quoted from other publications. A list of these is as follows: "Mad Itch in Animals; Intestinal Worms in Hogs; Tonic for Fowls (Douglass' Mixture); Approximate Parturient Periods of Domestic Animals; Veterinary Inspectors, State Board of Health; Fleas on Pet Dogs; Horse Liniment; Normal Temperature (Pulse and Respiration); \$2,500,000.00 for Foot-and-Mouth Disease; Test for Dipping Vat Solution; How to Test a Cow for Tuberculosis; Garget in Cows; Kidney Worms in Hogs; Treatment for Lung Worms in Hogs; Mad Itch in a Dog; Plague Subsiding; How to Make the Self-Boiling Cattle Dip; Diluting the Dip to Form a Bath; Anthrax Appears; Epizootic Lymphangitis; Insect Pests to Live Stock; Ox Warbles; More Anthrax; How to Feed a Horse; Forage Poisoning; Some Poultry Pests; Tick Eradication in Dade and Broward Counties; How to Make a Horse Swallow

Medicine; Texas' State Veterinarian Dies of Anthrax; The Intradermal Test in Bovine Tuberculosis; The Oxidation of the Arsenic in Dipping Vats; False Alarm; Only Ticks; Hog Cholera Sanitation; Deaths in Hogs Following Serum-Virus Treatment; Control of Hog Cholera; The Animal Manges." These appeared under the heading "Veterinary Notes," which have become a feature of the publication. There also appeared in each number "Veterinary Statistics" giving the details, progress of tick eradication, construction of dipping vats, glanders cases, hog-cholera serum distribution and statistics, and details performed by the veterinary division.

From April 1st, to December 31st, there were sent out from this division 4,684 pieces of mail, and 3,251 pieces were received. There were during the whole year received and answered 271 telegrams, making in all, 8,477 communications which were handled.

There was one resignation from the corps of veterinary inspectors and five appointments. A list of these men and a statement defining their connection with the Board will be found in the report.

In presenting this report, I take occasion to say that it has been the aim of this division to give the public a service that would compare favorably with that given by the other departments of the State Board of Health, and to thank you and the Board for the many evidences of support in our endeavors.

Yours very respectfully,
CHAS. F. DAWSON, M. D., D. V. S.,
Veterinarian.

Organization of the Veteri- nary Division.	Charles F. Dawson	Veterinarian	Jacksonville
	W. A. Munsell	1st Asst. Veterinarian	Green Cove Springs
	J. W. DeMilly	2nd Asst. Veterinarian	Tallahassee
	Hazel I. Williams	Clerk and Stenographer	Jacksonville
Veterinary Inspectors.	F. H. Armstrong		Pensacola
	Geo. S. Davis		Palatka
	A. D. Galbraith		Lakeland
	W. E. Grace		Jacksonville
	J. K. Jones		Gainesville
	W. P. Link		Tampa
	T. J. Mahaffey		Jacksonville
	Guy M. Parrish		Lake City
	F. W. Porter		Tampa
	Major Schofield		Miami
	H. H. Spencer		Jacksonville
	W. J. Tanner		North St. Petersburg
	E. G. Vans Agnew		Kissimmee
Live Stock Agents.	S. W. Hiatt	Gonzales	Escambia County
	J. J. Hubel	Lemon City	Dade County
	W. E. Van Landingham	Fort Pierce	St. Lucie County
County Farm Demonstration Agents, giving free service.	COUNTY	AGENT	ADDRESS
	Alachua	H. S. McLendon	Gainesville
	Baker		
	Bay	B. V. Mathis	Panama City
	Bradford		
	Brevard		
	Broward		
	Calhoun	J. E. Yon	Blountstown
	Citrus	W. E. Allen	Lecanto
	Clay	W. E. Brown	Green Cove Springs
	Columbia		
	Dade		
	De Soto	Joseph Crews	Wauchula
	Duval	W. L. Watson	Jacksonville
	Escambia	S. W. Hiatt	Gonzales
	Franklin		
	Gadsden		
	Hamilton		
	Hernando	J. T. Daniel	Brooksville
	Hillsboro	R. T. Kelley	Plant City
	Holmes	R. I. Matthews	Bonifay
	Jackson	G. W. Belser	Marianna
	Jefferson	M. C. Gardner	Monticello
	Lafayette	D. C. Geiger	Mayo
	Lake	Wm. Gomme	Tavares
	Leon (white)	Andrew Jackson	Tallahassee
	Leon (colored)	Frank Robinson	Tallahassee
	Levy		
	Liberty	A. W. Turner	Bristol
	Madison	D. R. McQuarrie	Madison
	Manatee		
	Marion	S. J. McCully	Berlin
	Monroe		
	Nassau	James Shaw	Hilliard
	Orange	C. H. Baker	Orlando

Osceola	B. E. Evans	Kissimmee
Palm Beach		
Pasco	R. T. Weaver	Dade City
Pinellas		
Polk	A. A. Lewis	Kathleen
Putnam		
Santa Rosa	O. O. Simmons	Botts
Seminole	C. M. Berry	Sanford
St. Johns	H. C. Lawton	Hastings
St. Lucie		
Sumter	T. Z. Atkeson	Live Oak
Suwannee	T. H. Stripling	Perry
Taylor		
Volusia		
Wakulla	A. W. Long	Sopchoppy
Walton	J. C. Smith	De Funiak Springs
Washington	D. G. McQuagge	Chipley

It is evident from all sources of information that hog cholera is on the decline, in Florida. Whether this is due to the improvements in sanitation and the use of serum and virus, or of serum alone, or to the generally-accepted fact that hog cholera attains its maximum and minimum every other ten years, we do not know. While this latter reason is unexplainable, it seems to be a sort of hog-cholera law, and we are inclined to believe this latter reason explains the apparent decline.

It is accepted by several states that the promiscuous use of hog-cholera virus, in connection with serum, or employing the so-called Double-method, actually spreads the disease. It, of course, does good to the hogs on which it is properly applied, but is very dangerous to hogs which are left untreated, because it is impossible to handle virus under farm conditions without infecting the premises. The use of virus, a single time on a farm, means that farm is infected and that untreated hogs are in danger of infection for a year. This Board ceased the distribution of virus because of the danger of the introduction of Foot and Mouth Disease infection, as it had been demonstrated that several outbreaks of the disease in other states had their origin in hog-cholera virus obtained from hogs sick from Foot and Mouth Disease.

The demand for serum was unusually heavy for several months and reached such alarming proportions that it became necessary to again cut down the amount any person may receive in any twelve months, to 500 c. c., about a pint. The Board spent, in round numbers, \$20,000.00 in

1915, \$21,000.00 in 1914, \$8,000.00 in 1913, \$12,000.00 in 1912 and \$2,500.00 in 1911, for hog-cholera serum.

I have, in previous annual reports, discussed the administrative questions concerning hog cholera, quite fully, so that there is little I can add, in this report, except to say that the work of administering the serum is now almost wholly done by County Farm Demonstration Agents who make no charge for their services and who make their reports to the State Agent.

Following is a statistical table of serum distribution for 1915:

COUNTY	C. C. Serum Distributed	C. C. Virus Distributed	Estimated No. Hogs treated	Estimated Weight of Hogs Trtd.	Hog Cholera serum statistics.
Alachua	212,950 c.c.	1,475 c.c.	9,679	590,419 lbs.	
Baker	3,500 c.c.	----- c.c.	159	9,969 lbs.	
Bay	2,100 c.c.	125 c.c.	95	5,795 lbs.	
Bradford	165,750 c.c.	290 c.c.	7,534	549,574 lbs.	
Brevard	800 c.c.	----- c.c.	36	2,196 lbs.	
Broward	----- c.c.	----- c.c.	-----	----- lbs.	
Calhoun	8,600 c.c.	----- c.c.	390	23,790 lbs.	
Citrus	35,650 c.c.	350 c.c.	1,620	98,820 lbs.	
Clay	42,925 c.c.	230 c.c.	1,460	89,060 lbs.	
Columbia	74,350 c.c.	----- c.c.	3,379	206,119 lbs.	
Dade	----- c.c.	----- c.c.	-----	----- lbs.	
De Soto	24,450 c.c.	135 c.c.	1,111	67,711 lbs.	
Duval	18,450 c.c.	230 c.c.	838	51,118 lbs.	
Escambia	36,250 c.c.	595 c.c.	1,647	100,467 lbs.	
Franklin	900 c.c.	----- c.c.	40	2,440 lbs.	
Gadsden	208,250 c.c.	4,780 c.c.	9,493	579,073 lbs.	
Hamilton	47,450 c.c.	50 c.c.	2,156	131,516 lbs.	
Hernando	47,050 c.c.	----- c.c.	2,138	130,418 lbs.	
Hillsboro	13,300 c.c.	150 c.c.	650	39,650 lbs.	
Holmes	38,150 c.c.	120 c.c.	1,734	105,774 lbs.	
Jackson	224,550 c.c.	930 c.c.	10,206	622,556 lbs.	
Jefferson	49,500 c.c.	----- c.c.	2,250	137,250 lbs.	
Lafayette	22,300 c.c.	----- c.c.	1,013	61,793 lbs.	
Lake	10,150 c.c.	65 c.c.	461	28,121 lbs.	
Lee	5,700 c.c.	25 c.c.	259	15,799 lbs.	
Leon	26,775 c.c.	730 c.c.	1,217	74,237 lbs.	
Levy	71,250 c.c.	50 c.c.	3,238	197,518 lbs.	
Liberty	31,550 c.c.	----- c.c.	1,434	87,474 lbs.	
Madison	126,650 c.c.	465 c.c.	5,756	351,116 lbs.	
Manatee	600 c.c.	----- c.c.	27	1,647 lbs.	
Marion	86,150 c.c.	555 c.c.	3,961	241,621 lbs.	
Monroe	----- c.c.	----- c.c.	-----	----- lbs.	
Nassau	7,050 c.c.	250 c.c.	320	19,520 lbs.	
Orange	5,900 c.c.	165 c.c.	468	28,548 lbs.	
Osceola	7,750 c.c.	150 c.c.	352	21,472 lbs.	
Palm Beach	1,850 c.c.	50 c.c.	84	5,104 lbs.	
Pasco	2,900 c.c.	50 c.c.	131	7,991 lbs.	
Pinellas	4,550 c.c.	----- c.c.	206	12,566 lbs.	
Polk	13,600 c.c.	130 c.c.	618	37,698 lbs.	
Putnam	8,450 c.c.	15 c.c.	394	23,424 lbs.	
Santa Rosa	26,800 c.c.	150 c.c.	1,218	74,298 lbs.	
Seminole	1,750 c.c.	50 c.c.	79	4,819 lbs.	
St. Johns	15,450 c.c.	500 c.c.	702	42,822 lbs.	
St. Lucie	1,900 c.c.	----- c.c.	81	4,941 lbs.	
Sumter	49,150 c.c.	1,475 c.c.	2,234	136,274 lbs.	
Suwannee	92,850 c.c.	260 c.c.	4,220	257,420 lbs.	
Taylor	15,250 c.c.	105 c.c.	693	42,273 lbs.	
Volusia	6,000 c.c.	----- c.c.	272	16,592 lbs.	
Wakulla	2,100 c.c.	----- c.c.	95	5,795 lbs.	
Walton	39,200 c.c.	90 c.c.	1,781	108,641 lbs.	
Washington	34,850 c.c.	735 c.c.	1,584	96,624 lbs.	
Total	1,973,400 c.c.	15,525 c.c.	89,503	5,459,933 lbs.	

38,450 c.c serum sold at cost.

As hog cholera serum is supplied only by application on stand-

ard application blank of the State Board of Health, giving number of hogs to be treated, etc., and as all serum is labeled for immediate use, this number is believed to be fairly accurate as representing hogs treated during 1915.

Tick Eradication.

Two counties, Broward and Dade, and probably the lower portion of Palm Beach County will be declared free of the cattle tick on April 1st, 1916, by the Secretary of Agriculture.

This work has been accomplished by the Federal, State and County Governments, in close co-operation with the people and has gone on uninterruptedly, to a conclusion.

These counties are already feeling the effects, as many car-loads of fine cattle have already been landed on the tick-free pastures and we may expect to see these counties fill up with cattle and the people there will have a new animal industry that is free from any menace. These counties, are, therefore, the most favored of any in the State, at present; but they are only so, because their citizens willed it.

There is reason to believe that Palm Beach will take up the work in the near future, as the conditions there are similar to those in Broward and Dade Counties. These Counties. are "no-fence" counties with few, if any, range, cattle. The work of eradicating the tick was simple and the people wanted it done, are enthusiastic over the outlook, and have already a strong cattlemen's association, which will co-operate with this Board in preventing violations of regulations that are necessary to be enforced to prevent re-infestation of the area with cow ticks.

Interstate Dipping Vat and Non-infectious Pens.

No ticky horses, mules or cattle can legally be shipped or driven into the area from which the tick has been eliminated. This means that any ticky animals presented for transportation into the area must be held, dipped and shipped, under conditions that prevent an infestation with ticks. Animals may be shipped from tick-free areas in the North and South in cars specially equipped for feeding, without being unloaded in pens that must be considered as infectious; but no animals from any ticky area in Florida, or elsewhere can enter Broward and Dade Counties unless special facilities are provided. These consist of a dipping vat and non-infectious, feeding pens, located either on a rail-road or connected therewith by a loading chute which is so arranged that it can not become infested with ticks. These facilities

are a necessity, if our own citizens in other counties are to be benefited, directly. If not provided, farmers who wish to settle in the counties can not take their cattle with them. They would be compelled to pay prices, that may become prohibitive, for cattle already there. To this extent, agricultural pursuits would be hampered and immigration stopped.

Animal industry has now an excellent opportunity in these counties and should receive the fostering care of the government. Plant industry is well established there; but agricultural people are better off when they have both animals and plants; it being universally recognized they are mutually dependent.

Two years ago certain prominent cattlemen endeavored to induce the Federal Government to establish a dipping vat and non-infections feeding pens at Jacksonville, in order that through shipments of cattle might be made from Jacksonville, to the tick-free areas, for feeding or breeding purposes, as the case might be.

Permission was refused because Florida had not actively taken up the work of tick eradication. This reason no longer holds good. If the dipping and feeding facilities were established in Jacksonville, owners could dip their ticky cattle a first time in any one of the many existing vats, under State Supervision, and forward them to Jacksonville, within twelve days, for a second dipping, when they could be loaded into disinfected cars from non-infectious pens, the next day, and be shipped anywhere. This all seems very simple and really is as simple and inexpensive as it seems. Our farmers will not realize the value of tick eradication until some practical lesson of this kind is taught them.

Here is an instance of what can be done when ticks are controlled. A dairyman, near Jacksonville, who was among the first to install a dipping vat, recently sold about 100 head of Holstein cattle most of which he had raised, to another Florida concerns for between \$9,000.00 and \$10,000.00. A purebred Holstein heifer brought \$400.00. When asked what he thought of the dipping vat, as a commercial proposition, answered, "I could not have raised these cattle under the old ticky conditions."

There are now eighty-eight cattle dipping vats that were reported constructed, up to Dec. 31st, 1915, showing

Dipping Vats.

an increase of thirty-eight, for the year. These have, with the exception of the State Board of Health vat constructed at the University of Florida, for educational purposes, been built by private enterprise.

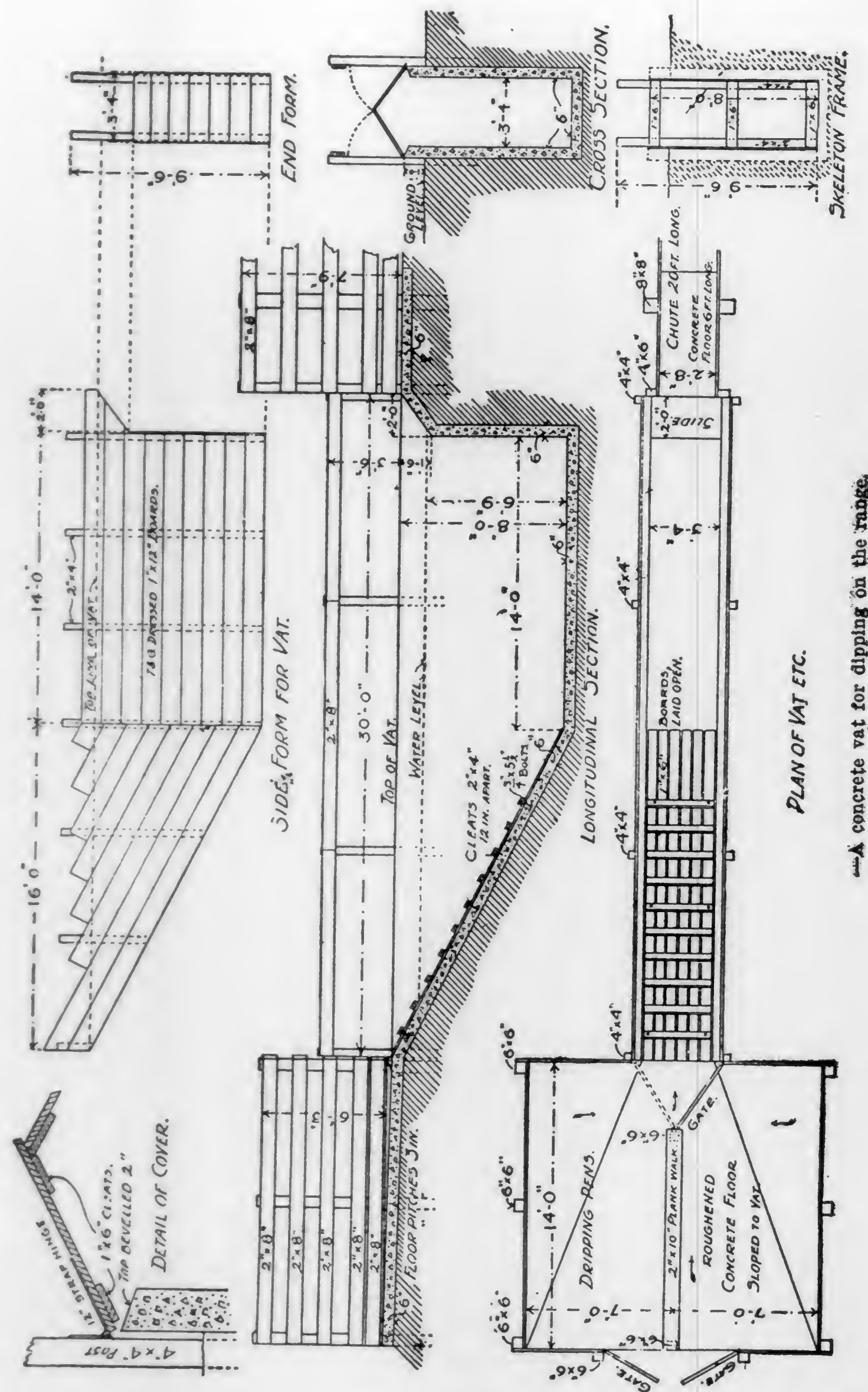
A list of these follows:

COUNTY	TOWN	OWNER
Alachua	Gainesville	A. L. Jackson
Alachua	Gainesville	Kincaid Bros.
Alachua	Gainesville	University of Florida
Alachua	Daysville	Bock & McDonald
Alachua	Rochelle	Pfeifer Bros.
Alachua	Rochelle	A. Bruce Zetrouer
Alachua	Rochelle	A. W. Zetrouer
Alachua	Wacahoota	Sheriff Ramsey
Baker	Baxter	C. F. Barber
Baker	McClenny	C. F. Barber
Bradford	Raiford	State Prison Farms
Clay	Highland	F. D. Long (5 vats owned by Cattlemen's Association)
Dade		Freeman Berge
De Soto	Indian Prairie	R. L. Cowart
De Soto	Ona	M. V. Homeyer
De Soto	Ona	Bob Crews
De Soto	Wauchula	Riverside Dairy Com.
Duval	Jacksonville	Jacksonville Union
Duval	Jacksonville	Stock Yards
Duval	Youkon	Sam Spencer
Escambia	Barth	E. Hicks
Escambia	Cantonment	J. D. Anderson
Escambia	Cottage Hill	W. C. Barrineau
Escambia	Muscogee	P. K. Yonge
Escambia	Muscogee	P. K. Yonge
Gadsden	Chattahoochee	State Insane Asylum
Gadsden	Ocklocknee	E. M. Davis
Hamilton	Jasper	Roy Adams
Hamilton	Jasper	J. A. Harrison
Hamilton	Winn	H. S. McCallum
Hillsboro	Tampa	Aug. Van Epoe
Holmes	Binifay	J. McLachlin
Holmes	Binifay	W. A. Sessoms
Holmes	Noma	Hamp Morris
Holmes	Ponce de Leon	Dan Hughes
Jackson	Campbellton	W. L. McKinley
Jackson	Campbellton	W. G. Bryan
Jackson	Cottondale	J. W. Hinson
Jackson	Greenwood	W. F. Chambliss
Lake	Leesburg	W. R. Matthews
Lake	Tavares	(Unknown)
Lake	Umatilla	Griffin Bros.
Lake	Victoria	(Unknown)
Leon	Tallahassee	(Club)
Leon	Tallahassee	H. M. Johnson, Jr.
Liberty	Sumatra	Car Bros.
Liberty	Telogia	W. C. Halley

COUNTY	TOWN	OWNER
Liberty	Telogia	W. H. Stoutamire
Manatee	Laurel	A. E. Blackburn
Marion	Citra	J. L. Williams
Marion	Evinston	P. K. Richardson
Marion	Irvine	L. K. Edwards
Marion	McIntosh	S. H. Gaitskill
Marion	Ocala	Jack Camp
Marion	Ocala	C. P. Howell
Nassau	Baldwin (near)	C. F. Barber
Nassau	Crawford	Keene
Orange	Lake Pickett	James Bros.
Orange	Pine Castle	J. P. A. Hermon
Orange	Zellwood	Wm. Edwards
Osceola	Cane Creek	(Unknown)
Osceola	East Lake	(Unknown)
Osceola	Kissimmee	E. J. Lesley
Osceola	Southport	Henry T. Bass
Pasco	Dade City	Community Vat (Kirby Williams)
Pasco	Trilby	(Unknown)
Putnam	Hollister	C. L. Whitehead
Putnam	Rodman	Rodman Lumber Co.
Seminole	Chuluota	J. W. Nixon
Seminole	Geneva	J. C. Cameron
Seminole	Sanford	Toschatchee Ranch Co. (Alfred Foster)
Seminole	Sanford	Toschatchee Ranch Co. (Alfred Foster)
St. Johns	Hastings	F. E. Bugbee
Suwannee	Branford	W. H. Foxworth
Suwannee	Wilmarth	Frank Drew
Taylor	Perry	(Unknown)
Volusia	Barberville	Wm. Revels
Volusia	Emporia	Floyd P. Felt
Volusia	Pierson	F. D. Harper
Walton	Floral, Ala.	W. S. Hughes

Bureau of Animal Industry Circular 207 gives directions for dipping cattle to destroy ticks, including plans and specifications for the construction of concrete and brick vats. Certain changes in the concrete vat, so as to make it more suitable for range conditions, have recently been suggested and are embodied in the accompanying plan and bill of materials. The principal differences consist in the vat being larger and having perpendicular instead of sloping sides. A longer or shorter vat could be made if desired.

Plan for a
Concrete Vat
for Dipping
Cattle on
the Range.



WASHINGTON : GOVERNMENT PRINTING OFFICE : 1918

BILL OF MATERIALS.

Lumber for Forms.

- 14 pieces 1 by 12 inches by 14 feet, tongue-and-groove.
- 4 pieces 1 by 12 inches by 16 feet, tongue-and-groove.
- 6 pieces 1 by 12 inches by 20 feet, tongue-and-groove.
- 4 pieces 1 by 12 inches by 14 feet.
- 4 pieces 1 by 12 inches by 12 feet.
- 5 pieces 1 by 6 inches by 14 feet, for cross pieces for forms.
- 12 pieces 2 by 4 inches by 10 feet.

Lumber for Dripping Pen.

- 25 pieces 2 by 8 inches by 14 feet.
- 1 piece 22 by 10 inches by 12 feet.
- 10 pieces 6 by 6 inches by 10 feet, for posts.
- 3 pieces 1 by 6 inches by 18 feet and 3 pieces 1 by 6 inches by 16 feet for gates.

Lumber for Chute.

- 2 pieces 4 by 6 inches by 12 feet and 6 pieces 8 by 8 inches by 12 feet, for posts.
- 10 pieces 2 by 8 inches by 20 feet or 20 pieces 2 by 8 inches by 10 feet.

Hardware and Iron Work.

- 6 bolts $\frac{3}{4}$ by $5\frac{1}{2}$ inches, with nuts and washers, for false floor to incline.
- 1 sheet $\frac{1}{4}$ -inch boiler iron, cut to shape for slide, plate bored and counter-sunk for four screws.
- 4 pair of heavy strap or T hinges 12 inches long, with screws, for cover.
- 2 pair of strap or T hinges 10 inches long, with screws, for gates.
- 1 pair strap-eye screw hinges for entrance gate to dripping pens.

Concrete for Vat.

- 17.3 barrels cement.
- 5.6 cubic yards sand.
- 9.5 cubic yards rock.

Concrete for Chute and Dripping Pen.

- 6 barrels cement.
- 2 cubic yards sand.
- 3.75 cubic yards rock.

Bricks.—All bricks should be hard burned.

Mortar.—The mortar used in laying the bricks should be composed of 1 part of Portland cement and 3 parts of clean, sharp sand. The plaster for facing the inside of the vat should consist of 1 part of cement and 2 parts of sand.

Specifications for the Construction of a Brick Dipping Vat.

PLAN FOR BRICK VAT

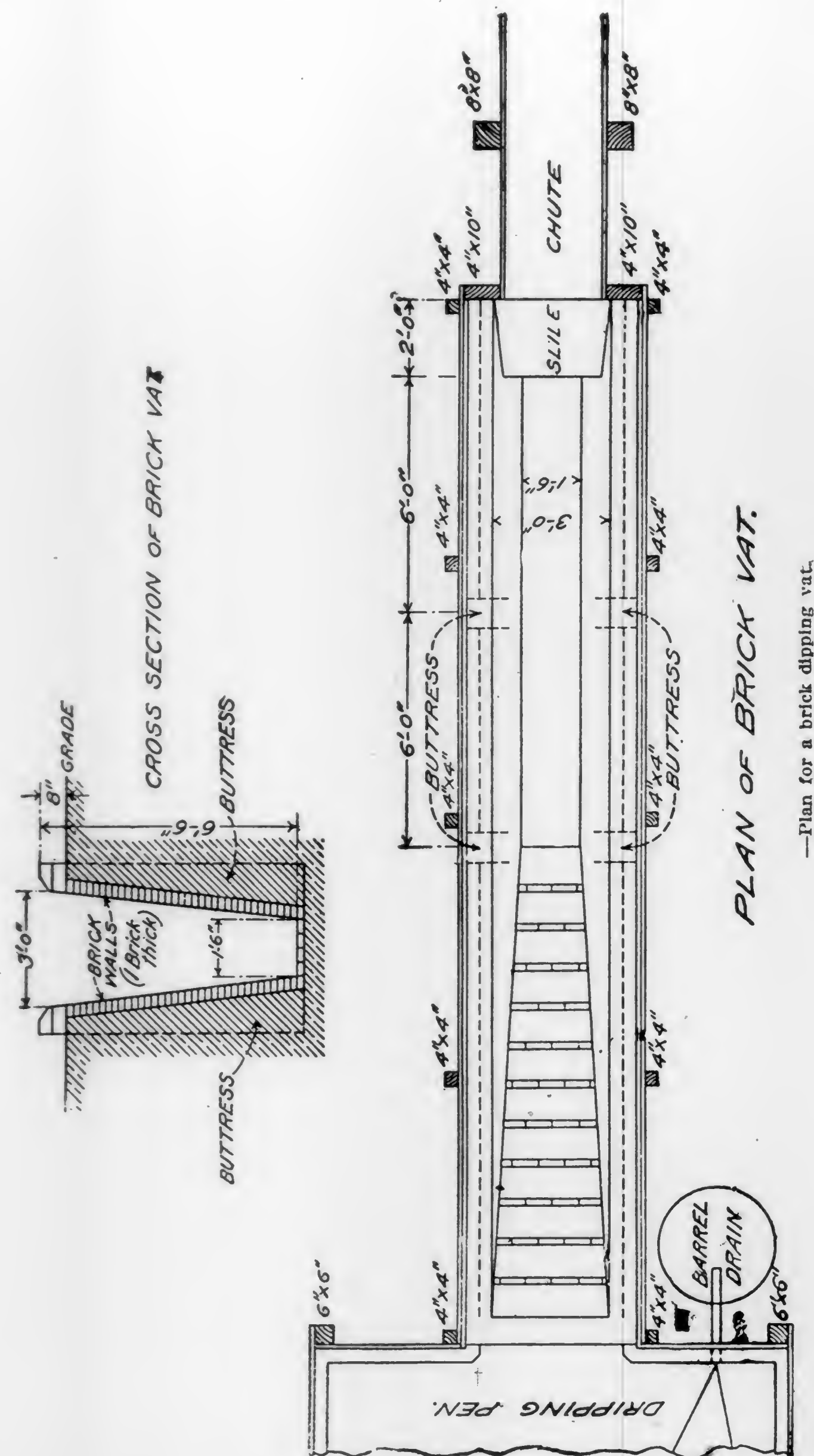
Excavate the ground 1 inch wider than the outside width of the vat. Lay up the walls one brick thick, all bricks to be stretchers; that is, the long way of the brick to be laid the long way of the wall.

The sides are to be laid with level courses and the batter or slant is made by setting back each succeeding layer of bricks. Break joints in every course. Rake out the horizontal mortar joints at least 1-2 inch from the inside face of the wall. This will give a key for the cement-mortar facing. Build buttresses or piers where indicated on plan and shown on cross section. (See figure 2.) The buttresses are to be one brick wide at the bottom and to extend far enough from the inside face of the vat so that the outside face will be plumb and finish even with the outside face of the coping or curb at top of vat. The buttresses should be laid as a part of the wall and should be bonded into the wall. The bottom is laid after the walls are up and the bricks are laid flat. The exit incline is laid with bricks laid on edge, and every fifth course is to project 2 inches above the face of the incline to form cleats. The mortar between the ends of the bricks which form the cleats should be cleaned out in order to permit the dip to run back. In laying up the walls fill in with mortar between the dirt and outside face of wall.

The side walls above the ground may be finished and beveled by using a heavy coating of cement mortar, or the top may be finished by laying the last two courses of bricks on edge so that the bricks are headers; that is, the bricks are laid at right angles to the face of the wall. Cover the inside faces of walls, exit incline, floor, and slide with a one-quarter inch coat of cement mortar mixed in the proportion of 1 part cement to 2 parts of sand. Trowel the surface with a steel trowel to make smooth.

The dripping pen and the chute are to be floored with bricks. If the ground is very firm, the bricks may be laid flat, but if the ground is not firm a more satisfactory floor will be produced by laying the bricks on edge. The bricks should be laid in a bed of cement and the joints grouted with cement grout. Cement grout is made by mixing neat cement with water until it has the thickness of cream. Before any of the brickwork is coated with mortar the bricks

Excavation
and
Construction.



—Plan for a brick dipping vat.

should be thoroughly washed, and they should be thoroughly wet before the plaster coat is applied. The dripping pen and chute are to be plastered with a one-quarter inch coat of cement mortar, and before it is completely set the surface is to be rubbed with a brush broom or a heavy stable broom.

Bill of Materials for Brick Vat, Dripping Pen, and Chute.

Brick for vat	2,560
Brick for dripping pen and chute if laid on edge	1,320
if laid flat	780
Cement	sacks 28
Sand (for mortar)	cubic yards 1.6

Self-boiled Cattle Dip.

The so-called Self-boiled Dip is so simple to make that it is recommended above the old dip. Its name implies that it boils itself; but such is not the case, because of the impossibility of getting pure chemicals at reasonable prices. The formula, and directions for making are as follows:

30 pounds arsenic.
30 pounds sal soda.
12 - pound can caustic soda.
2 1/4 - pound can caustic soda.
3 gallons pine tar
Can for same

Proceed as follows:

Empty the 12-lb. can of caustic soda into a ten-gallon iron pot or galvanized wash tub, add three gallons of water and stir. Add, a pound or two at the time, the arsenic, stirring all the time to dissolve the arsenic. When all the arsenic is dissolved allow to cool some and then add, in like manner, the thirty pounds of sal soda. A half gallon more of water added at this time will cause the arsenic and soda to dissolve more rapidly, and you can help matters by applying a little fire. If the chemicals were pure, the solution would boil. When the solution is complete add enough water to bring the total up to 15 gallons, and you have your concentrate which is to be diluted 100 times and is enough to fill a 1,500 gallon vat.

To make tar stock:

Place the 2 1/4 lb. can of caustic soda in a 5-gallon pot and add 3 quarts of water. Stir and when cooled down

some, add the three gallons of tar and stir thoroughly. This makes the tar alkaline, instead of acid, and is water-soluble. Test by washing some off the hand.

In filling vat add 3 or 4 times as much water to the tar and empty into vat when same is about three-fourths full of water and stir. Add the arsenic solution after vat is filled with water, and stir. Experts can make this dip in half an hour.

Time can be saved by making the tar stock first or starting it first, as it takes a long time to get it out of the can, in cool weather. Make a small vent hole in can so the tar can run out.

In making additions to the vat, use 3 pints of the tar to each 100 gallons of dip required to be added to vat.

If a vat is built according to the original, official specifications, it will contain 1,470 gallons of dip, when filled to a depth of 5 feet 1 inch, but as changes are always made, it is necessary to determine the capacity by one's own measurements.

The following is the method adopted by the Federal Government:

- (1) Reduce all dimensions to the same denomination, feet or inches.
- (2) Add the length of the bottom of the vat to the length at the water line.
- (3) Add the width of the bottom to the width at the water line.
- (4) Multiply these sums (2) and (3) together.
- (5) Multiply the length of the bottom by the width of the bottom.
- (6) Multiply the length at the water line by the width at the water line.
- (7) Add together (4), (5), and (6).
- (8) Multiply this sum (7) by one-sixth the perpendicular depth from the water line to the bottom, which gives the capacity of the vat in cubic feet or cubic inches.
- (9) If the capacity in cubic inches has been obtained, divide (8) by 231; if the capacity in cubic feet has been obtained, divide (8) by 0.1336. In either case the result will be the capacity of the vat in gallons.

Measure approximately the number of gallons of solution left in the vat, and for each 100 gallons add six pounds of slacked lime. Mix the whole thoroughly and allow it to stand for a couple of hours. Then, for each 100

How to Determine the Number of Gallons a Vat Contains.

To Render Harmless the Arsenic in the Dipping Solution Before Emptying the Vat for Cleaning.

gallons in the vat, take six pounds of ordinary commercial copperas (sulphate of iron) and dissolve it in hot water. Pour the hot copperas solution into the vat, stir it up well and allow the whole to stand for ten or twelve hours. The arsenic unites with the copperas (iron) and will have fallen to the bottom of the vat as an insoluble, harmless precipitate or sediment. The clear fluid on top will contain no arsenic, and may be pumped, or syphoned out on to the ground.

The sediment at the bottom of the vat may be taken out and buried, if so desired, although it too will be non-poisonous.

Waterproofing.

If the earth around the vat is thoroughly drained the vat may be waterproofed by painting the surface coat, but painting the surface will not give satisfactory results if there is ground water to seep in. The paint may be good hot pine tar, or gas-house tar cut with naphtha or gasoline and applied with a brush, or after the mortar coat has hardened the inside of the vat may be painted with an oil-cement paint made as follows: Mix enough water with Portland cement to make a fairly stiff paste; add to this 5 per cent of heavy petroleum residuum oil based on the weight of the cement, and mix thoroughly until the oil entirely disappears, then add more water and stir until a paint of the consistency of cream is formed. This paint should be applied with a brush and should be well rubbed into the surface. Should the mortar coat be omitted the paint coat should be applied directly to the surface of the concrete.

It is highly important that the vat be water-tight, as a leaky vat gives continual trouble.

Eradication of Ticks by Pasture Rotation Method.

Another effective method of eradicating ticks is by adopting what is called the "Pasture Rotation Method," described in Bulletin No. 78, by Dr. J. R. Mohler, of the Bureau of Animal Industry.

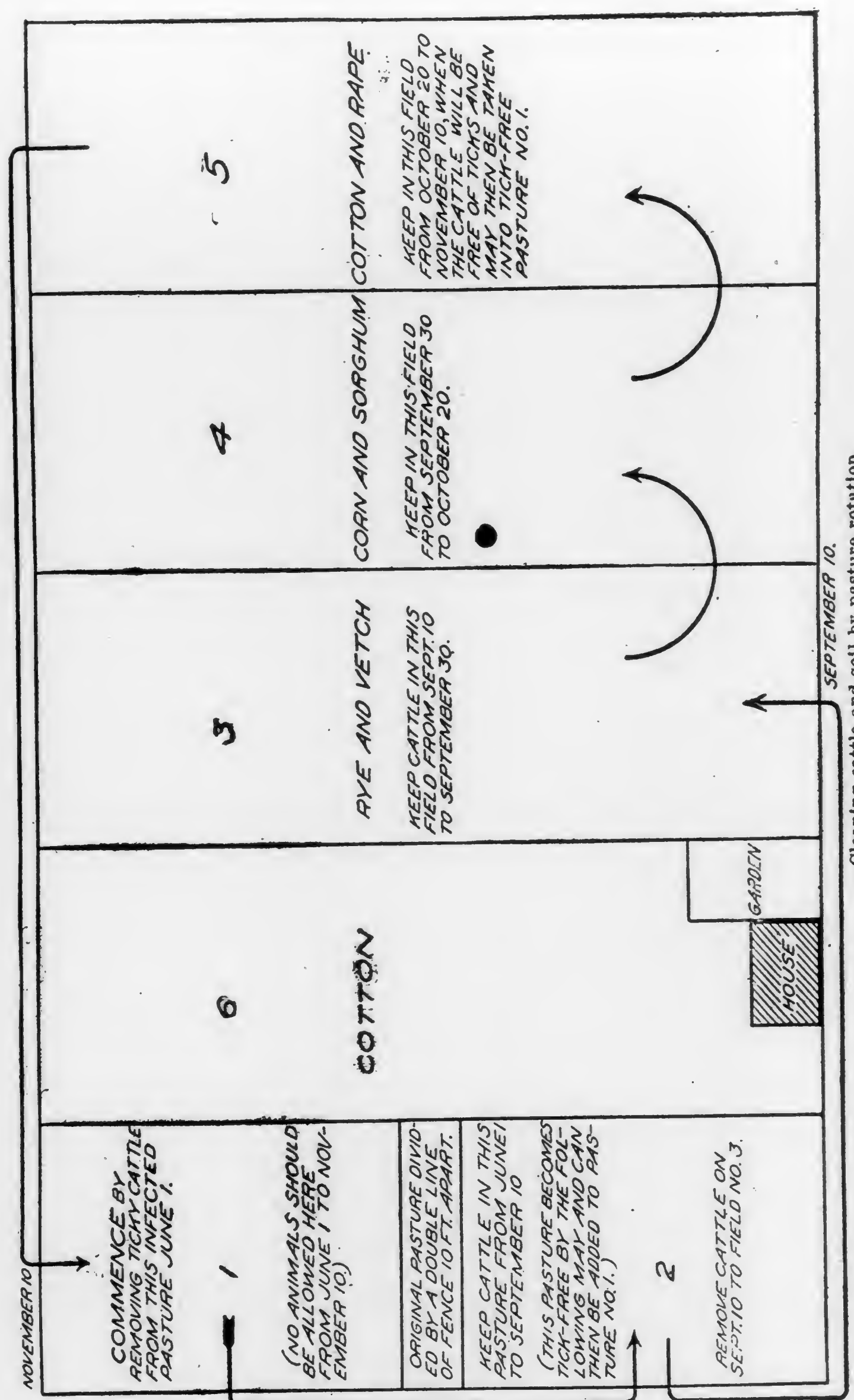
It is believed this method is particularly applicable to some parts of Florida, where it is difficult to build the dipping vat and handle cattle often. We, therefore, reproduce the following from the above-mentioned bulletin.

"A very satisfactory method for freeing cattle as well as pastures of the cattle tick is by pasture rotation, which combines the suggestions of Curtice, Butler, and Morgan. It is based upon the knowledge that by severing the relation of the fever ticks and the animals upon which they develop these ticks will perish. To adopt this plan first

divide the infected pasture into two parts, which is best accomplished by a double line of fence with a 10-foot space between the lines to prevent ticks crossing from one pasture to another. In order to observe all possible precautions, this fence should have either a furrow thrown up against it or a board or rail placed tightly along the bottom to help keep the ticks within. All animals that carry the cattle tick are excluded from the first half of the pasture, which may be termed pasture No. 1, from June 1st, until November 10th, at which time all the ticks that were there will have perished from want of a host and the field will be ready for receiving tick-free cattle. The ticky cattle, on being removed from pasture No. 1, on June 1st, are placed in the other half of the original pasture, which may be called pasture No. 2, where they are kept from June 1st, to September 10th. They may now be partly cleaned of ticks by placing them at the latter date (September 10th,) in a cultivated field—for instance, a rye or vetch or wheat and vetch field—and by keeping them therein for twenty days, when a large number of ticks will have fallen off. The partly cleaned cattle may then be removed on September 30th, to a field sown to corn and sorghum, corn and cow-peas, or a combination of corn, sorghum, and cowpeas, or other forage crops.

In this field most of the remaining ticks, if not all of them, will have dropped from the animals within twenty-days, but in a few instances the cattle may still be infested, so the animals should be moved on October 20th to a cotton field in which rape or crimson clover had been sown at the last cultivation for the purpose of furnishing food for the cattle while there. The crops should have been gathered from all these fields before turning in the cattle. Here they are kept for another twenty days (to November 10th), not because they would not be free of ticks at an earlier date, but on account of the desire to keep cattle away from pasture No. 1 until November 10th. On this date, these clean cattle are returned to pasture No. 1, which will now be tick-free as a result of the exclusion of animals since June 1st. These cattle should be kept in this pasture until May, by which time the ticks in pasture No. 2 will have starved, owing to the absence of animals therefrom since September 10th. Both the cattle and pastures will now be tick-free and the double line of fence between the two fields

can be removed and the original pasture restored. This plan, as represented by the diagram, is merely a suggestion of arrangement and may easily be varied with regard to the selection of crops and the location of pastures to suit the demands of individual farms. To prevent ticks from crawling under either of the fences between fields III and IV and IV and V, it is necessary to have a board or rail placed tightly on the ground along these lines of fence, or to throw up a single furrow along both sides of the fences. To avoid the danger of infestation from the outside, care should be taken to feed the animals, in those cases where the pastures or fields are over-stocked, on hay cut from tick-free fields, and to keep out work oxen, mules, and horses that may harbor fever ticks, thus preventing reinfestation of the pasture. When the cultivated fields are on a slope it is advisable to use the lowest field first, in order that the ticks dropped within may not be washed by drainage upon the adjoining fields which are later to hold the cattle. For the same reason, where a stream runs through the fields upon which the cattle are to be placed, the field farthest removed from the head water should be used first. Where an endeavor is made to rid a farm of ticks, it is essential that the work animals (oxen, mules, and horses) used in cultivating the fields be curried to keep off the ticks and prevent the latter from being carried into these fields. If a farm or plantation consists of a pasture and but one field under cultivation, the above plan can be made applicable by fencing off three inclosures in the latter and by rotating the cattle in them every twenty days in the manner just described. The same precautions should be observed in changing the cattle from one lot to another and in preventing ticks from getting into the cultivated field, as are mentioned above."



Glanders.

Florida has again been fortunate in regard to this disease, as we record only fourteen cases of glanders, in 1915, as against twenty-three cases in 1914 and sixty-two cases in 1913. All the cases in 1915 were found in Jacksonville, which was very fortunate for the farmers. This is the low-water mark for glanders, in the history of the disease, in Florida, so far as records for the past fifteen years show. The amount of indemnity paid in 1915, was \$1,025.00.

The acceptance of the new mallein test and the more general care on the part of the railroads in accepting shipments, added to the regulations adopted by the Board, which require mallein tests to be made upon every horse or mule shipped into the State, is having a salutary effect upon the spread of glanders. With prompt destruction of all open cases, a test of all exposed stock, and the rigid enforcement of our regulations, there is little reason to fear this disease. The people are entitled to the protection afforded by our regulations. They effectually check the pernicious practice of dealing in glandered stock. They protect the dealer, the trader, the farmer, the lumber and turpentine operator. They force the glandered "stuff" back to the man who breeds it on the horse ranches of the West and Northwest. The test, faithfully carried out on all horses, would, in a few years, eradicate this most important disease of the horse.

	COUNTY	TOWN	MONTH	NUMBER	REIMBURSE-
				ANIMALS	
Cases of Glanders dur- ing the year 1915.	Duval	Jacksonville	January	1 horse	\$ 50.00
	Duval	Jacksonville	February	1 horse	\$ 75.00
	Duval	Jacksonville	March	1 horse	\$ 75.00
	Duval	Jacksonville	May	3 horses	\$225.00
	Duval	Jacksonville	June	1 horse	
	Duval	Jacksonville	June	1 mule	\$150.00
	Duval	Jacksonville	July	1 mule	
	Duval	Jacksonville	July	1 horse	\$150.00
	Duval	Jacksonville	August	1 horse	\$ 75.00
	Duval	Jacksonville	Sept.	1 horse	
	Duval	Jacksonville	Sept.	1 horse	\$150.00
	Duval	Jacksonville	Dec.	1 mule	\$ 75.00
	Duval	Jacksonville			

Black Tongue
in Dogs.

In the Report for 1914, I included an article entitled, "Hook Worms in Dogs, and their Relation to So-called Black Tongue in Dogs," which appeared originally in "Health Notes" for October, 1914.

This article has attracted considerable attention from

dog owners and veterinarians in many states, as indicated by requests for copies. The thymol treatment has been supplied in cases to citizens of Florida. All experience and evidence which has come to hand indicates that Black-tongue in dogs is an acute Uncinarianis, or a heavy infestation with hook-worms.

The following statements from correspondents indicate they agree with claims made in the previous publication referred to:

"Live Oak, Fla.: Please send me at once two treatments for hookworm. I have two fine bull dogs and want to give them treatment as a preventive of the black-tongue. Have used this treatment very successfully before."

"Bogalusa, La.: Some days back I received a letter from you in regard to Black Tongue. At the time I wrote you, I had lost one of my dogs, and had one that had it; and had a bull dog to take it just about the time I received your letter. I treated both according to your statement, and have cured both of them. Up to this last dog we lost, I think it is about ten or eleven dogs we have lost with this disease."

"Osteen, Fla.: I wish to thank you for the hook worm medicine you sent me sometime ago. I have not had an occasion to use it on my own dogs but other people have had me treat theirs after they have given them up as dead. Saved all so far that I have had anything to do with. I am going this morning to see if I can give any assistance to a stockman whose entire bunch are down and from what symptoms he gives I think its the same case I have had before."

The increasing demand upon the Board for the services of a veterinarian, especially in making inspection of animals for shipment out of the State, has made it necessary to resort to the same methods as are used in other States, to meet this demand. Accordingly, it has become a policy to appoint all known graduate veterinarians, of good standing, as veterinary inspectors for the State.

The duties of these men consist in writing bills of health, and making mallein tests of horses and mules that are to be removed to another State, this being now required by most States. The inspectors serve without pay from

Veterinary
Inspectors

the State Board of Health, their fees being paid by the owners of the animals inspected. They use the Board's regular shipping blanks, and are certified to the State Veterinarians of the various States as being authorized to certify to shipments. They are not permitted to ship cattle, as the cattle quarantine makes it impractical to utilize their services for that purpose.

The State thus gets the free service of a large force of veterinarians and the public gets prompt and efficient service which permits of the prompt forwarding of their shipments.

For list of these inspectors, see page 202, Organization of the Veterinary Division.

Movement of
Certified Ani-
mals into and
out of the
State in 1915.

Total number of horses brought into State during 1915	1,351
Total number of mules brought into State during 1915	1,411
Total number of cattle brought into State during 1915	899
Total number of cattle hides brought into State during 1915	113
Total number of swine brought into State during 1915	115
Total number of dogs brought into State during 1915	7
Grand total of certified animals shipped into State during 1915	3,783
Total number of horses shipped out of State during 1915	131
Total number of mules shipped out of State during 1915	133
Total number of cattle shipped out of State during 1915	1,814
Total number of swine shipped out of State during 1915	104
Grand total of certified animals shipped out of State during 1915, including 1 dog	2,183

Florida Live
Stock Estimates
for six past
years.

The Bureau of Crop Estimates in co-operation with the Weather Bureau, United States Department of Agriculture, makes the following estimates for the years 1911, 1912, 1913, 1914, 1915 and 1916:

Horses	Number	Value per head
January 1, 1911	49,000	\$113.00
January 1, 1912	52,000	106.00
January 1, 1913	53,000	118.00
January 1, 1914	55,000	122.00
January 1, 1915	57,000	121.00
January 1, 1916	59,000	112.00
Mules		
January 1, 1911	24,000	161.00
January 1, 1912	25,000	154.00
January 1, 1913	26,000	152.00
January 1, 1914	27,000	168.00
January 1, 1915	28,000	163.00
January 1, 1916	29,000	154.00
Milch Cows		
January 1, 1911	118,000	35.00
January 1, 1912	123,000	33.50

Milch Cows	Number	Value per Head
January 1, 1913	123,000	36.00
January 1, 1914	128,000	38.00
January 1, 1915	133,000	42.50
January 1, 1916	136,000	40.00
Other Cattle		
January 1, 1911	736,000	12.40
January 1, 1912	758,000	13.10
January 1, 1913	766,000	12.20
January 1, 1914	735,000	13.70
January 1, 1915	735,000	14.50
January 1, 1916	772,000	14.90
Sheep		
January 1, 1911	119,000	1.99
January 1, 1912	120,000	2.10
January 1, 1913	119,000	2.10
January 1, 1914	118,000	1.90
January 1, 1915	119,000	2.20
January 1, 1916	119,000	2.30
Swine		
January 1, 1911	867,000	4.60
January 1, 1912	954,000	5.20
January 1, 1913	878,000	5.90
January 1, 1914	904,000	6.00
January 1, 1915	949,000	6.00
January 1, 1916	996,000	6.00

On June 29th, 1906, Congress passed, "An Act to Prevent Cruelty to Animals While in Transit by Railroad or Other Means of Transportation from One State or Territory or the District of Columbia into or Through Another State or Territory or the District of Columbia, repealing sections, etc.

This law requires that animals in interstate transit be unloaded every 28 hours for feed, water, and rest for at least five consecutive hours. It provides, however, that the owner of the animals may make a written request that the period of confinement may be extended to thirty-six hours. This request must be made upon a separate sheet of paper and attached to the way-bill accompanying the shipment, and releases the railroad or other carrier from responsibility for carrying out the twenty-eight-hour clause.

In order to aid shippers and expedite matters, the following blank has been prepared and can be obtained from the Veterinarian's office:

"SHIPPER'S REQUEST TO WAIVE TWENTY-EIGHT-HOUR
CLAUSE

_____, Fla., _____ 1916.
As owner, (or custodian) I hereby authorize and request
_____ Ry. Company and other carriers

Federal Law
Relative to
unloading ani-
mals for Feed,
Water and
Rest

participating in the movement, that the time of confinement of the shipment of stock consisting of _____
 _____, tendered on the _____, in _____
 _____ of stock) _____ (number and kind
 _____, consigned by _____, in _____
 _____ (date) _____ (car (s) initials
 _____ and numbers) _____ (shipper)
 from _____ to _____, at _____
 _____ (shipping point) _____ (consignee) _____ (destination)
 be extended to thirty-six hours, in accordance with the Federal Stat-
 ute of June 29th, 1916.

 WITNESS

 Owner, agent or custodian for owner.

This form furnished shipper by the Veterinary Division, Florida
 State Board of Health.

Cattle Quar-
 antine Poster.

On May 1st, 1915, the Board adopted "Rules and Regulations" for carrying on the work of tick eradication in Dade and Broward Counties. These were issued as Publication No. 140, copies of which may be obtained upon application.

The following is the form of poster used in notifying the public of the quarantine of a county:

"STATE CATTLE QUARANTINE LINE
 NOTICE OF QUARANTINE AND THE ESTABLISHMENT OF
 TICK ERADICATION IN THE COUNTY OF DADE, STATE
 OF FLORIDA."

In accordance and by authority of Chapter 4693, Acts of 1899, and Chapter 6434, No. 14, authorizing the control, suppression, and eradication of contagious and infectious diseases of live stock in the State of Florida, is quarantined, and the work of tick eradication established. Cattle infested with or exposed to the Southern Cattle Fever Tick (*Margaropus annulatus*) disseminate the cause of "Southern," "Splenic," "Texas" or "Tick" Fever, a dangerous and frequently fatal disease of cattle.

No cattle, bulls, oxen, steers, cows, yearlings, heifers or calves shall be allowed to be driven, transported or allowed to stray across this State quarantine line into the County of Dade, except in accordance with provisions of the Rules and Regulations governing the control and eradication of the Southern Cattle Tick.

STATE BOARD OF HEALTH,

JOSEPH Y. PORTER,

State Health Officer."

Publication 139.

Anthrax.

One of the most important happenings of the year was an outbreak of anthrax which occurred near Tallahassee, in July.

This was the second time anthrax had been discov-

ered in Florida, the first outbreak of which we have any record having occurred near Tallahassee about fifteen years ago.

It was fortunate that the disease was diagnosed as anthrax early and before it had any chance of being spread to any great extent. The disease was carried from the first farm, by buzzards, to the second farm before the nature of the disease was positively known. Only a few animals on each place became infected. The usual methods of handling such outbreaks, the isolation of all sick animals, prompt burial of all carcasses and vaccination of all horses, mules and cattle were carried out promptly and the spread of the disease was checked.

A few cases of this disease have been found during the past year. Its similarity to farcy, the skin-form of glanders, as well as the fact that it is a contagious disease affecting equines, makes it important.

It differs from farcy in that it is characterized by abscess formations in the skin, while farcy is characterized by ulcerative processes.

The cause of this disease is a yeast fungus called *Cryptococcus farciminosus*.

It was formerly observed only in Southern Europe, on the shores of the Mediterranean Sea. It now exists in Russia and England having been imported into the latter country from South Africa at the end of the Boer war. It has been found in the Phillipine Islands, and in America, in Pennsylvania and in Ohio.

No doubt, it exists in all civilized countries.

As should be expected, the affected animals do not respond to the glanders test.

While experience has shown that this disease does not exist here to the alarming extent it does in the Northern states, there seems to be a wide-spread demand for information upon the subject. No doubt this demand is created by settlers who have come from sections where the disease is more or less prevalent. Frequent inquiries are made by owners of a family cow for a test for tuberculosis. Manifestly the Board can not undertake to send a veterinarian a hundred miles or more to test a cow, yet that cow may be tuberculous and may be furnishing milk that will cause tuberculosis in some child. We have limited our work, in the past, to testing the herds of state institutions, requiring an

Epizootic
 Lymphangitis
 or African or
 Japanese Farcy.

Bovine
 Tuberculosis.

agreement to slaughter any reactors. Strange as it might seem to less favored states, in this regard, we have not found any reactors to the test. However, as many cows are imported into Florida it is very important that steps be taken to prevent the importation of tuberculous cattle. Our Regulations prevent this to a large extent. It is not to be understood that bovine tuberculosis does not exist in Florida. The writer has seen numerous cases, but always in cows that came into the State already infected. We hold that the disease does not tend to spread from these imported cases, and is very rare in native-born animals.

There is, however, a demand from municipalities for the State Board of Health to test the dairy cows furnishing milk to them.

As in other lines of work the Board can not ignore requests for services which may have such important bearings upon the public health, and is willing to make these investigations, for municipalities, under certain conditions.

The trouble has, always, everywhere, been the disposition of cattle that prove, upon test, to be tuberculous. Few dairymen care to risk agreeing to slaughter all reactors. No town or small city feels itself able financially to pay for cattle so slaughtered. The State takes the same view.

The object of the slaughter is to keep the reactor's milk off the market. If there is any way, outside of slaughter, that way should be satisfactory to sanitarians. We held the view that a cow whose milk could not be sold was of little value to the owner, and that if slaughtered as soon as pronounced tuberculous, her meat might be edible, as reactors frequently show only a small amount of disease in one or more glands, and their meat is perfectly good for food; whereas, if the cow is kept indefinitely the disease progresses and, in time, renders the carcass unfit for food.

Recently the following propositions have been made to certain cities that had requested the Board to test dairy cows and give advice as to the construction and management of sanitary dairy plants.

We have offered to test all dairy cows furnishing milk to a city or town provided the dairyman's application for a license contained an agreement to allow all reactors to be branded on both hips with the letters T. R., meaning tuberculine reactor; that the owner of such branded cattle would

also agree not to sell or offer them for sale and would keep them isolated from the dairy herd.

This latter part of the agreement seems superfluous when we read in the law that, "It shall be unlawful for any person to bring into this State or to offer for sale therein any horses, mules, cattle, hogs or other domestic animals, knowing at the time of such introduction for sale of any such animals that they are suffering from disease known as glanders, farcy, cholera, Texas fever or other virulent, contagious or infectious diseases; and any person convicted of such offense shall be punished by imprisonment not more than four years in the State prison, or by fine of not more than one thousand dollars."

While, under this law, the burden of proof would rest on the prosecutor, it could be held that the owner of a bovine animal that had reacted to the tuberculine test knew that the animal was diseased, when he had been notified to the effect by the State.

Following is a list of live stock men, by counties, as compiled by Professor C. L. Willoughby, of the University of Florida.

ALACHUA COUNTY.			
NAME.	ADDRESS	Animals	Florida Live Stock Men.
John Beville	Gainesville	Beef cattle	
E. M. Beville	"	Beef cattle	
R. L. Barton	" R No. 4	Beef cattle	
O. P. Cannon	"	Dairy cattle	
N. A. Callison	"	Jerseys	
D. G. Edwards	"	Beef cattle	
A. G. Feaster	" R No. 5	Beef cattle	
J. H. Holly	"	Beef cattle	
G. W. Harrison	" R No. 5	Beef cattle	
A. L. Jackson	"	Shorthorns, Berkshires	
H. A. Knight	" RFD	Durocs	
W. C. Kincaid	"	Beef cattle	
John Kincaid	"	Aberdeen Angus	
Komoko Farms	"	Beef cattle	
S. D. McDonald	"	Dairy cattle	
T. E. McDonald	"	Dairy cattle	
Geo. H. Mansfield	"	Dairy cattle	
L. E. Means	"	Beef cattle	
T. B. Means	" R No. 4	Beef cattle	
W. B. Phifer	"	Beef cattle	
James P. Ramsey	"	Beef cattle	
J. D. Stringfellow	"	Beef cattle	
W. A. Strickland	"	Beef cattle	
W. R. Thomas	"	Beef cattle	
W. T. Barry	Wade	Beef cattle	
J. P. Bradshaw	Archer	Beef cattle	
G. H. Gibbons	"	Beef cattle	

Name	Address	Animals
J. J. Barrs	Micanopy	Beef cattle
James Harrison	"	Beef cattle
Z. C. Herlong	"	Poland Chinas
J. B. Simonton	"	Jerseys
Harvey Dudley	New Berry	Beef cattle
J. M. Hiers	Trenton R No. 1	Beef cattle
W. H. Highsmith	" R No. 1	Beef cattle
E. R. Hardee	" R No. 2	Beef cattle
Silas Hardee	" R No. 2	Beef cattle
John R. Hardee	" R No. 2	Beef cattle
W. B. McElroy	" R No. 1	Beef cattle
C. W. McElroy	" R No. 1	Beef cattle
J. E. Marshall	" R No. 3	Beef cattle
H. R. Studstill	" R No. 2	Beef cattle
J. E. Haynesworth	Haynesworth	Beef cattle
M. E. Jolly	Orange Heights	Beef cattle
E. E. Prince	Alachua	Beef cattle
A. Bruce Zetrouer	"	Herefords
L. W. Knight	"	Beef cattle
Thomas Mobly	"	Beef cattle
Charles Williams	"	Beef cattle
E. C. Pearson	"	Beef cattle
S. D. Means	Hague	Beef cattle
J. L. Shaw	Alachua	Beef cattle
J. L. Smith	"	Beef cattle
C. W. Stephens	Alachua	Beef cattle
C. R. Sparkman	Waldo	Beef cattle
H. D. Wood	Evinston	Durocs
L. H. Willis	Evinston	Poland Chinas

BAKER COUNTY

Name	Address	Animals
C. F. Barber	Macclenny	Beef cattle
B. H. Rowe	Macclenny	Beef cattle
Elijah Dobson	Olustee	Beef cattle

BAY COUNTY

Name	Address	Animals
W. R. McDaniel	Panama City	Beef cattle and hogs
Leslie Miller	"	Beef cattle
R. R. Praws	"	Dairy cattle
C. Russ	"	Beef cattle
Will Trautman	"	Dairy cattle
Dyer & Daniels	Wetappo	Sheep
J. C. Setterlind	St. Andrew	Berkshires
W. W. Gainer	Gainer	Beef cattle
W. R. Gainer	"	Beef cattle
G. McCall	"	Hogs
D. R. McBride	Youngstown	Hogs
T. L. Parker	"	Hogs
T. B. Young	"	Beef cattle and hogs
W. W. Wells	Econfina	Beef cattle
Dan Gainer	Millville	Hogs
A. J. Thomas	"	Hogs
O. E. Halehs	Lynn Haven	Hogs
R. B. Ansley	Merna	Hogs

BREVARD COUNTY

Name	Address	Animals
Irvin Simmons	LaGrange	Beef cattle

CALHOUN COUNTY

Name	Address	Animals
H. B. Gaskin	Blountstown	Beef cattle
J. L. Griffin	"	Beef cattle
J. B. Hally	"	Beef cattle
B. C. High	"	Beef cattle
S. A. Leonard	"	Beef cattle
J. H. McClellan	"	Beef cattle
Thos. McKeown	"	Beef cattle
T. E. Parrish	"	Beef cattle
F. M. Yon	"	Hogs
I. C. Atkins	Selman	Hogs
R. Fields	"	Beef cattle
W. H. Leonard	"	Beef cattle
John Griffin	Wewathitchka	Beef cattle
J. G. Edinfield	Altha	Beef cattle
C. A. Langford	"	Beef cattle
W. J. Puggeth	"	Hogs
G. W. Morehead	Chipola	Hogs
W. L. Whitfield	Early	Hogs

CITRUS COUNTY

Name	Address	Animals
H. W. Edwards	Crystal River	Beef cattle
H. G. Miller	"	Beef cattle
E. M. Harne	"	Beef cattle
W. R. Levine	Citronelle	Beef cattle
Jessie Smith	Citronelle	Beef cattle
Art Smith	Citronelle	Beef cattle
E. J. Allen	Lecanto	Hogs
C. E. Allen	Lecanto	Beef cattle
J. Y. Barnes	Lecanto	Beef cattle
W. H. Ross	Lecanto	Beef cattle
S. G. Revill	Lecanto	Hogs
J. A. Hampton	Floral City	Beef cattle
Will Belamy	Inverness	Hogs
John Spivey	Inverness	Hogs
Mr. Waggoner	Inverness	Dairy cattle
C. C. Croft	Hernando	Hogs
Mont. Van Ness	"	Hogs
R. M. Spieves	"	Hogs

CLAY COUNTY

Name	Address	Animals
Charles Conway	West Tocol	Beef cattle
T. W. Shands	Green Cove Springs	Beef cattle
J. N. Dissalkoen	Orange Park	Duroc
W. A. Munsell	Green Cove Springs	Yorkshire hogs

COLUMBIA COUNTY

Name	Address	Animals
S. J. Edwards	Fort White	Beef cattle
A. S. Goodbread	Lake City	Beef cattle
Geo. E. Lake	Watertown	Holsteins

DADE COUNTY

Name	Address	Animals
J. A. Caple	Miami	Dairy cattle
L. G. Hine	"	Dairy cattle

DE SOTO COUNTY

Name	Address	Animals
Arcadia Dairy Farm	Arcadia	Dairy cattle
Hollingsworth Bros.	"	Beef cattle
King Bros.	"	Beef cattle
Parker Bros.	"	Beef cattle
C. C. Pierce	"	Beef cattle, Durocs
C. J. Pierce	"	Essex hogs
W. H. Seward	"	Beef cattle
E. A. Thomas	"	Beef cattle
W. P. Tucker	"	Beef cattle
John Treadwell	"	Hogs
Peden Burnhill	Pine Level	Hogs
R. M. Crantham	"	Beef cattle
M. F. Mizell	"	Beef cattle
Asa Bailey	Wauchula	Beef cattle
T. N. Carlton	"	Beef cattle & hogs
John Puncher	"	Dairy cattle
A. C. Maddox	"	Hogs
Abe Roberts	"	Hogs
H. B. Rainey	"	Beef cattle
H. W. Smith	"	Beef cattle & hogs
R. R. Smith	"	Hogs
David Skipper	"	Beef cattle
Robert Bros.	Zolfo	Beef cattle
Skipper Bros.	"	Beef cattle
Williams & Phillips	"	Beef cattle
Steve Skipper	Avon Park	Beef cattle
N. H. Parnell	Crewsville	Hogs
P. H. Williams	"	Beef cattle
W. R. Langford	Buchanan	Beef cattle
W. A. Lanier	"	Beef cattle
W. J. Scarborough	" R No. 1	Beef cattle
E. Guthrie	Punta Gorda	Poland Chinas
A. E. Berry	Bowling Green	Jerseys

DUVAL COUNTY

Name	Address	Animals
H. E. Higginbotham	Dinsmore	Beef cattle
E. C. Pickett	"	Beef cattle
O. P. Oglivie	Tisonia	Beef cattle
W. A. Oglivie	Broward	Beef cattle
A. J. Terrell	"	Beef cattle
Irvin Harvey	Whitehouse	Beef cattle

DUVAL COUNTY—(Continued.)

Name	Address	Animals
E. C. E. Stodil	"	Hogs
W. B. Dawson	Pablo Beach	Hogs
J. H. Wells	Baldwin	Hogs
J. S. Raney	Mandarin	Hogs
H. C. Arpen	Jacksonville	Dairy cattle
J. W. Arpen	"	Dairy cattle
J. F. Bartholf	"	Dairy cattle
T. W. Bivins	"	Dairy cattle
J. S. Brandies	"	Dairy cattle
Bartholf Dairy Co.	"	Dairy cattle
W. H. Cope	"	Dairy cattle
John Cleveland	"	Dairy cattle
S. E. Crowley	"	Dairy cattle
S. A. Crews	"	Dairy cattle
J. C. Debevoise	"	Holsteins
T. Danston	"	Dairy cattle
Edgewood Dairy	"	Dairy cattle
W. C. Ellis	"	Dairy cattle
Ellis Dairy	"	Dairy cattle
R. H. Elliott	"	Hogs
Firdelle & Mills	"	Dairy cattle
German Dairy	"	Dairy cattle
I. E. Glover	"	Dairy cattle
T. B. Glover	"	Dairy cattle
A. L. Glover	"	Dairy cattle
A. B. Creek	"	Dairy cattle
A. M. Ives	"	Beef cattle and hogs
J. Jennings	"	Dairy cattle
V. C. Johnson	"	Dairy cattle
C. D. Kalman	"	Dairy cattle
A. C. Kaleel	"	Dairy cattle
S. E. Lowa	"	Dairy cattle
Main Street Dairy	"	Dairy cattle
C. O. Mimms	"	Dairy cattle
J. F. McNarray	"	Dairy cattle
S. W. Mott	"	Dairy cattle
J. R. McKinlay	"	Dairy cattle
E. Niles	"	Dairy cattle
C. D. Nickerson	"	Dairy cattle
H. Peterson	"	Dairy cattle
S. H. Pickett	"	Beef cattle
Springfield Dairy	"	Dairy cattle
N. Skipper	"	Dairy cattle
A. E. Studebaker	"	Dairy cattle
W. T. Stewart	"	Dairy cattle
Sunny South Dairy	"	Dairy cattle
Skinner Bros.	"	Hogs
H. H. Simmons	"	Berkshires
Riverside Dairy	"	Dairy cattle
Thos. Toney	"	Dairy cattle
J. B. Tanner	"	Dairy cattle
F. Williams	"	Dairy cattle
H. Winkelman	"	Dairy cattle
J. J. Welcher	"	Dairy cattle
White Rose Dairy	"	Dairy cattle

JACKSONVILLE MILK DEALERS

Nasrallah Bros.	Sasheen & Son	Jacksonville Creamery Home Run Depot
Rosenthal	Company	Pure Milk Depot
Lilly White Dairy	Arabian Milk Depot	Fred Arbeed

ESCAMBIA COUNTY

Name	Address	Animals
W. Y. Gordan	Atmore, Ala.	Hogs and Beef cattle
Jake Goodwin	" "	Hogs
J. A. Mason	" "	Hogs
Elijah Ward	" "	Hogs and Beef cattle
W. C. Barrineau	Cottage Hill	Hogs
T. G. Britton	"	Hogs
C. H. McDonald	"	Beef cattle and hogs
Geo. F. Miller	"	Beef cattle and hogs
Wm. McCurdy	Flomaton, Ala.	Hogs
W. R. Beard	Quintette	Dairy cattle & Berkshires
Henry Barrineau	Quintette	Hogs
J. D. Anderson	Cantonment R No. 1	Beef cattle
T. L. Barrineau	" "	Hogs
J. D. Mackey	" "	Dairy cattle
T. E. Maxey	" "	Dairy cattle
J. T. Ransley	" "	Dairy cattle
C. C. Simpson	" "	Dairy cattle
J. A. Stewart	" "	Dairy cattle
W. B. Weaver	" "	Dairy cattle
W. J. Shivers	Century	Dairy cattle
Riley Brewton	McDavid	Beef cattle
M. O. Baggett	"	Beef cattle
John Gibson	Pine Barren	Beef cattle
Walter Johnson	"	Beef cattle
T. L. Atkinson	Pensacola	Dairy cattle
Henry Ard	"	Dairy cattle
Burns Dairy	"	Dairy cattle
Ira Howell	"	Dairy cattle
J. W. Hall	"	Dairy cattle
Tom Handdrop	"	Dairy cattle
O. W. Jefferson	"	Dairy cattle
Magnolia Dairy	"	Dairy cattle
Wade Morgan	"	Beef cattle
Gideon Murphy	"	Beef cattle
Frank Caro	"	Beef cattle
R. L. Nobles	"	Dairy cattle
A. L. Quina	"	Dairy cattle
A. W. Stephenson	"	Dairy cattle
(Southern States Lumber Co.,	"	Jerseys, Herefords, & Berkshires

GADSDEN COUNTY

Name	Address	Animals
J. W. Edwards	Juniper	Beef cattle
Elex McPherson	"	Hogs

GADSDEN COUNTY—(Continued.)

Name.	Address	Animals
J. E. Parramore	"	Beef cattle
M. L. Parramore	"	Beef cattle and hogs
S. H. Strom	"	Beef cattle
F. G. Sampson	Quincy	Beef cattle
Richard Shaw	"	Berkshires and Herefords
W. L. Taylor	"	Dairy cattle
J. W. Mahaffey	Gretna	Hogs
O. W. Gardner	Greensboro	Hogs
Simon Garner	"	Beef cattle and hogs
J. C. Inman	"	Dairy cattle and hogs
James Johnson	"	Dairy cattle
T. N. McPherson	"	Beef cattle and hogs
John Sheppard	"	Durocs

HAMILTON COUNTY

Name	Address	Animals
L. C. Register	Jasper R No. 4	Beef cattle

HERNANDO COUNTY

Name	Address	Animals
W. A. Brooks	Brooksville R. F. D.	Beef cattle
Theo S. Coogler	"	Dairy cattle
J. T. Daniel	"	Dairy cattle
J. D. Hope	"	Dairy cattle
W. E. Hope	"	Dairy cattle
H. C. Mickler	"	Beef cattle
L. C. O'Neil	"	Beef cattle
L. C. O'Neil	"	Beef cattle
D. J. Peterson	"	Beef cattle
J. C. Priest	"	Beef cattle
M. C. Peterson	"	Dairy cattle
J. H. Priest	"	Hogs
W. Hop. Smith	"	Beef cattle
A. P. Sharp	"	Hogs
M. L. Shane	"	Dairy cattle
W. A. Skinner	"	Dairy cattle
Mrs. Mary A. Thompson	"	Dairy cattle
Chauncy Wilson	"	Beef cattle
C. M. Burroughs	Bay City	Dairy cattle
Mrs. J. M. Burroughs	"	Beef and dairy cattle
David Ayers	Rural	Beef cattle
Dave Crum	Powell	Beef cattle

HILLSBOROUGH COUNTY

Name	Address	Animals
C. L. Branch	Plant City	Beef cattle
John Boyd	"	Beef cattle
Dwight Crum	"	Beef cattle
Geo. Wilder	"	Beef cattle
Hop. Wilder	"	Beef cattle
Ed. Collins	Knights	Beef cattle
Denver Hawthorne	"	Beef cattle

HILLSBOROUGH COUNTY—(Continued.)

Name	Address	Animals
Jack Alderman	Fort Green	Beef cattle
Walter Colding	Picnic	Beef cattle
Frank Colding	"	Beef cattle
Mr. Forbes	Dover R. F. D.	Beef cattle
W. T. Henderson	Lynn	Beef cattle
W. T. Henderson	Lynn	Beef cattle
O. W. Strut	Thonotosassa	Berkshires
M. O. Chase	Valrico	Jerseys
Tom Lykes	R No. 3 Ballard Point	
	Tampa	Beef cattle
John Mously	Riverview	Beef cattle
R. A. Brantly	Tampa	Beef cattle
B. B. Barco	Tampa	Beef cattle
Nelson R. Cunningham	Tampa R No. 3	Beef cattle
E. F. DeBush	Tampa	Beef cattle
Geo. Imeson	Tampa	Beef cattle
C. L. Knight	Tampa	Beef cattle
W. E. Lightsey	Tampa R No. 3	Beef cattle
Judge Robles	Tampa	Beef cattle
W. G. Bryan	Ybor City	Beef cattle
W. G. Brodly	" R No. 3	Beef cattle
R. N. Brodly	" "	Beef cattle
S. G. Dix	" "	Beef cattle
D. O. Fulton	" "	Beef cattle
Henry Bros.	" "	Beef cattle
Linten Lightsey	" "	Beef cattle

DAIRYMEN SUPPLYING TAMPA

T. Alferio	Thirty-third St. Ybor City
G. Alferio	" "
Joe Bigico	Oak Park, R. F. D.
H. V. Barco	Grand Central Ave.
A. B. Barco	Grand Central Ave.
F. S. Bray	Rocky Point R. F. D.
S. T. Baker	Nebraska Ave.
G. Bartolotto	Lake Ave. and 50th St.
Guisippi Bejicue	12th St. and 41st St.
A. Coccitore	Oak Park, R. F. D.
J. Caccitore	Oak Park, R. F. D.
V. Coniglio	Oak Park, R. F. D.
Joe Cutro	Oak Park, Ybor City
A. Capitano	Oak Park R. F. D.
R. S. Clark	316 Twiggs St. R. F. D.
R. Caetano	West Tampa R. F. D.
L. Coletto	13th St. Ybor City
G. B. Carter	Police Station R. F. D.
N. Disalve	40th St. Ybor City
S. Digiaca	40th St. Ybor City
S. Dine	40th St., Ybor City
F. Diaz	College Hill R. F. D.
W. M. Drew	Nebraska Ave R. F. D.
R. Ferlita	40th St. Ybor City
B. Fernandez	Oak Park R. F. D.
Ferlita & Reina	24th Ave. R. F. D.
A. A. Fisher	Buffalo Ave. R. F. D.

DAIRYMEN SUPPLYING TAMPA—(Continued.)

D. S. Fisher	Buffalo Ave. R. F. D.
W. A. Fisher	Buffalo Ave. R. F. D.
D. F. Fonti	West Tampa, R. F. D.
R. Fernandez	West Tampa, R. F. D.
J. D. Gaetano	Lake Ave. and 50th St.
G. Guarliardo	40th St. Ybor City
J. Gonzalez	Oak Park R. F. D.
G. Galasso	Michigan Ave. & 43rd St.
W. J. Hancock	Nebraska Ave. R. F. D.
S. Glafagi Ione	1804 Montj Ave., Ybor City
Walter Johnson	Oak Park, Ybor City
P. Lalla	College Hill, R. F. D.
S. L. Lyman	North Florida Ave., R. F. D.
T. W. Lane	Buffalo Ave., R. F. D.
Antonio Massora	Oak Park, R. F. D.
D. Mulxitello	33rd St. Ybor City
C. C. Nelands	Nebraska Ave., R. F. D.
J. W. A. Norton	Hanna Ave. R. F. D.
G. Nicolleto	West Tampa, R. F. D.
J. W. O'Berry	Oak Park, R. F. D.
J. Peromie	Oak Park, R. F. D.
G. Parlafinano	23rd Ave., R. F. D.
M. Phillips	27 Ave., R. F. D.
O. Romano	College Hill, R. F. D.
T. Spoto	Oak Park, R. F. D.
A. Spoto	Oak Park, R. F. D.
B. L. Summer	Oak Park, R. F. D.
F. M. Sprague	Boulevard, R. F. D.
D. Testasicca	Fifteenth Street, Ybor City
Tampa Stock Farm	South Tampa, R. F. D.
G. Triano	15th St., and 5th Ave., R. F. D.
D. Valiti	DeSoto Park, R. F. D.
Mrs. M. Varoni	Lake Ave. and Fifteenth St.
A. J. Youngblood	Hyde Park, R. F. D.
J. Zamilito	West Tampa, R. F. D.

HOLMES COUNTY

Name	Address	Animals
D. Hughes	PondedeLeon	Beef cattle
J. A. Sims	Bonifay	Beef cattle

JACKSON COUNTY

Name	Address	Animals
Fred Blank	Marianna	Dairy cattle
M. H. Dickson	Marianna	Beef cattle
M. L. Dekle	"	Beef cattle
W. H. Millton	"	Beef cattle
J. F. Sims	"	Beef cattle
W. F. Chambliss	Greenwood	Beef cattle
J. W. Hinson	Cottondale	Hogs and Beef cattle
H. W. Mercer	"	Hogs
E. E. Pepler	"	Beef cattle
J. T. Crutchfield	Graceville	Hogs
J. H. Crutchfield	"	Hogs
A. J. Crutchfield	"	Beef cattle and hogs

JACKSON COUNTY—(Continued.)

THREE

H. P. Deal	"	Beef cattle
J. D. Kirkland	"	Beef cattle and hogs
J. W. Gibson	Sneads	Hogs
W. W. Westers	Inwood	Hogs
W. B. Norton	Cypress	Beef cattle and hogs
J. T. Porter	Grandridge	Durocs

JEFFERSON COUNTY

Name	Address	Animals
S. V. Coxsetter	Lloyd	Beef cattle
C. F. Shepherd	"	Hogs
R. J. Carroll	Lamont	Beef cattle
H. A. Barrow	Monticello	Beef
N. C. Bryan	"	Beef cattle and hogs
J. C. Braswell	"	Hogs
J. N. Bowman	"	Hogs
L. Majnoski	"	Beef and dairy cattle.
W. H. Finlayson	Ashville	Hogs
Jno. E. Morris	"	Hogs
Asa May	"	Hogs
F. B. McFarlin	"	Hogs
E. H. Groom	Wacissa	Hogs
Isaac Story	"	Hogs
Hirsch Walker	"	Beef cattle
B. P. Bird	Drifton	Beef cattle
Alex Stokley	Drifton	Beef cattle

LAFAYETTE COUNTY

Name	Address	Animals
Chancey Bros.	Mayo	Beef cattle
W. D. Dempsey	"	Beef cattle
Hart Bros.	"	Beef cattle and hogs
Wm. Land	"	Beef cattle
C. Manucey Bros.	"	Beef cattle
W. Em Murray	"	Beef cattle and hogs
W. M. Perry	"	Beef cattle
Chaires Bros.	Old Town	Beef cattle and hogs
Martin Barber	Cross City	Beef cattle and hogs
John Robertson	"	Hogs
T. A. Fletcher	Mallory	Beef cattle and hogs
J. N. Fletcher	"	Beef cattle
W. H. Matthis	"	Beef cattle
John Adamson	Day	Beef cattle and hogs

LAKE COUNTY

Name	Address	Animals
R. L. Ballard	Tavares	Beef cattle
Magnolia Farms	"	Dairy cattle
Leesburg Dairy Co.	Leesburg	Dairy cattle
W. R. Newell	"	Dairy cattle
J. C. DeVanes	Umatilla	Beef cattle
W. Griffon	"	Beef cattle

LAKE COUNTY—(Continued.)

Name	Address	Animals
W. Carter	(Carter Island) Mascoffe	Beef cattle
Fred Douglas	Mascoffe	Beef cattle
H. H. Brant	Clermont	Hogs
T. M. Kerlon	"	Hogs
W. Tucker	"	Beef cattle
R. R. Crab	Yalaha	Hogs
J. H. Hiley	"	Hogs

LEE COUNTY

Name	Address	Animals
J. E. Hendry	Ft. Myers	Beef cattle
R. A. Henderson	"	Beef cattle
A. H. Roberts	"	Beef cattle
W. H. Towles	"	Beef cattle

LEON COUNTY

Name	Address	Animals
J. R. French	Woodville	Beef cattle
W. R. Register	Woodville	Beef cattle
J. J. Johnson	Tallahassee	Jerseys
A. P. McCaskill	"	Beef cattle
George B. Perkins	"	Beef cattle
H. S. Spencer	"	Beef cattle
Capt. Vason	"	Jerseys
W. L. Crowder	"	Dairy cattle
Miss Minnie Clarke	"	Dairy cattle
John Donk	"	Dairy cattle
R. G. Johnson	"	Dairy cattle
Miles Johnson Sr.	"	Dairy cattle
Miles Johnson Jr.	"	Dairy cattle
Walter Moore	"	Dairy cattle
Michler & Perkins	"	Dairy cattle
J. W. Powell	"	Dairy cattle
Bob Smith	"	Dairy cattle

LEVY COUNTY

Name	Address	Animals
E. Bateman	Williston	Beef cattle
Will Epperson	"	Dairy cattle
Epperson Bro.	"	Beef cattle
I. T. Fugate	"	Hogs
T. L. Hodgson	"	Hogs
Drew Jones	"	Beef cattle
Will S. King	" R No. 1.	Beef cattle
J. Martin	"	Beef cattle
John Paisley	"	Beef cattle and hogs
Ira Rawles	"	Beef cattle
J. M. Roach	"	Beef cattle and hogs
J. N. Rawls	"	Beef cattle
G. I. Randall	"	Beef cattle
D. E. Williams	"	Hogs
I. N. Rawles	Montbrook	Beef cattle

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LEVY COUNTY—(Continued.)

Name	Address	Animals
J. S. Blitch	"	Beef cattle
Sim Blitch	"	Beef cattle
M. M. Sistrunk	"	Beef cattle
S. J. Gunn	Otter Creek	Beef cattle
B. B. Lowman	Raleigh	Beef cattle
Graham Carter	Levyville	Beef cattle
J. N. Wood	Levyville	Beef cattle
John W. Drummond	Janney	Beef cattle
A. D. Perryman	"	Beef cattle
W. L. Turner	Ellzey	Beef cattle

LIBERTY COUNTY

Name	Address	Animals
I. Sanborn	Sanborn	Beef cattle
B. B. Summer	Vilas	Beef cattle and hogs
W. S. Larkins	Woods	Beef cattle
J. A. Shuler	Hosford	Beef cattle
W. S. Storetamill	"	Beef cattle
W. J. Battenau	Bristol	Beef cattle
E. H. Revels	"	Hogs
C. B. Shuler	"	Beef cattle
J. R. Shuler	"	Beef cattle
O. B. Shuler	"	Beef cattle
A. J. Flinn	Orange	Beef cattle
Mrs. W. H. Gunn	"	Beef cattle
K. M. Stokes	Telogia	Beef cattle

MADISON COUNTY

Name	Address	Animals
Anderson & Brown	Madison	Hogs and Beef cattle
W. N. Dickenson	"	Beef cattle
L. A. Fraleigh	"	Hogs, dairy and beef cattle
J. Hughey	"	Beef cattle and hogs
B. B. McCall	"	Beef cattle
L. H. Plant	"	Dairy cattle
J. B. Raines	"	Dairy cattle
J. E. Smart	"	Dairy cattle
John Sales	"	Hogs and beef cattle
J. D. Southall	"	Hogs
W. C. Smith	"	Hogs and beef cattle
H. S. Smith	"	Beef cattle
C. H. Smith	"	Hogs
Jim Sales	Lovett	Hogs
D. Wood	"	Dairy cattle
F. J. Blanton	Lee	Hogs
F. Dixon	Lee	Beef cattle
M. Chason	Ebb	Hogs
C. P. Smith	"	Hogs and beef cattle
Gillies & Morgan	Greenville	Beef cattle
B. H. Hanson	Hanson	Dairy cattle

MANATEE COUNTY

Name	Address	Animals
Morgan Johnson	Bradentown	Beef cattle
Garrett Murphree	"	Beef cattle
Geo. B. Wallace	"	Jerseys
Vanderipe Bros.	"	Beef cattle
Mrs. Potter Palmer	Chicago	Beef cattle
Gates & Curry	Manatee	Beef cattle
S. C. Gates	"	Dairy cattle
W. R. Whitaker	"	Beef cattle
W. H. Gillett	Parrish	Beef cattle
J. D. Lamb	"	Beef cattle
W. F. Rye	Oak Knoll	Beef cattle
J. B. Lingo	Palmetto R. F. D.	Beef cattle
M. E. Powell	" R No. 1.	Dairy cattle
J. H. Revere	"	Hogs
Henry Hawkins	Fruitville	Hogs
J. S. Hancock	Miakka	Beef cattle
E. W. Gould	Oneco	Jerseys

MARION COUNTY

Name	Address	Animals
S. H. Blitch	Blitchton	Beef cattle
Alfred Ayer	Ocala	Beef cattle and Holsteins
Z. C. Chambliss	"	Jerseys
Jack Camp	"	Shorthorns and Berkshires
C. Carmichael	"	Beef cattle
J. L. Edwards & Bro.	"	Beef cattle and Berkshires
C. P. Howell	"	Hogs
G. T. Leake	"	Beef cattle
J. M. Meffert	"	Beef cattle
J. D. McDuffy	"	Duroc Jerseys
Mr. McAteer	"	Dairy cattle
Mrs. S. R. Pyles	"	Dairy cattle
R. H. Redding	"	Beef cattle
K. D. Redding	"	Beef cattle
S. T. Sistrunk	"	Aberdeen Angus
Tom Morgan	Romeo	Beef cattle
L. P. Miller	Berlin	Beef cattle
James Badger	Berlin	Beef cattle
S. H. Brooks	Zuber	Beef cattle
P. W. Green	Pedro	Beef cattle
L. K. Edwards	Irvine	Beef cattle
E. C. Beuchler	Anthony	Holsteins
E. L. Howell	"	Beef cattle
J. C. Howell	Anthony	Beef cattle
F. L. Grantham	Silver Springs	Duroc-Jerseys
Wm. Deadman	McIntosh	Beef cattle
S. H. Gaitskill	"	Shorthorns & Duros
W. M. Gist	"	Shorthorns & Berkshires
A. J. Lauchlin	Fairfield	Beef cattle
Major Priest	Burbanks	Beef cattle

MARION COUNTY—(Continued.)

Name	Address	Animals
Arthis Williams	Cotton Plant	Beef cattle
J. M. Martin & Co.	Martin	Hogs
Reiff & Co.	"	Hogs
Townsend & Teuton	"	Hogs
E. P. Townsend	"	Hogs
Walter Ray	Leroy	Beef cattle
Howell & Chambliss	Martin	Shorthorns
Millwood Farm	Reddick	Dairy cattle
C. B. Howell	Lowell	Hogs
Alf Porter	Summerfield	Hogs
Nichols & Perry	"	Hogs
A. L. McKay	Morrison	Hogs
J. T. Rawls	Dunnellon	Dairy cattle
B. P. Keep	Boardman	Sheep
D. A. Dupont	Martel	Beef cattle

NASSAU COUNTY

Name	Address	Animals
L. Z. Nelson	Hillard	Beef cattle
George Quinn	"	Beef cattle
Wm. Walker	"	Beef cattle
Wm. Johnson	Crawford	Beef cattle
J. W. Keen	Crawford	Beef cattle
C. A. Higginbotham	Yulee	Beef cattle
J. L. Higginbotham	"	Beef cattle
Geo. Dyll	Dyll	Beef cattle
F. S. Geiger	Andrews	Beef cattle
G. H. Geiger	"	Beef cattle

ORANGE COUNTY

Name	Address	Animals
D. C. Mitchell	Gotha	Beef cattle
W. W. Wicoff	Taft	Beef cattle
Wm. Edwards	Zellwood	Berkshires and Jerseys
W. B. Willetts	Maitland	Duroc-Jerseys
J. H. McCollough	Orlando	Beef cattle
Seth Woodruff	"	Beef cattle
A. H. Willetts	"	Beef cattle

OSCEOLA COUNTY

Name	Address	Animals
J. R. Donegan	Deer Park	Beef cattle and Hogs
W. R. Godwin	Whittier	Beef cattle
Ackies Bass	St. Cloud	Beef cattle and Hogs
B. P. Mikesell	"	Beef cattle
Tom Bass	Kissimmee	Beef cattle and Hogs
Rull Bass	"	Beef cattle and Hogs
W. J. S. Carr	"	Beef cattle
Carson Cattle Co.	"	Beef cattle and Hogs
Arthur E. Donegan	"	Beef cattle and Hogs
Pat Johnson	"	Beef cattle and Hogs
John M. Lee	"	Beef cattle
Lesley & Bass	"	Beef cattle and Hogs

OSCEOLA COUNTY—(Continued.)

Name.	Address	Animals
J. W. Miller	"	Beef cattle
J. F. O'Berry	"	Beef cattle
Henry Partin	"	Beef cattle and Hogs
Steve Partin	"	Beef cattle and Hogs
Southport Cattle Co.	"	Beef cattle and Hogs
S. J. Triplett	"	Beef cattle

PALM BEACH COUNTY

Name	Address	Animals
Bowers Bros.	Jupiter	Beef cattle
Henry S. Pennock	Jupiter	Dairy cattle
B. Barber	Utopia	Hogs
Platt & Sons	Stuart	Beef cattle

PASCO COUNTY

Name	Address	Animals
L. J. Caskins	Dade City	Beef cattle
L. J. Caskins	"	Beef cattle
J. W. Hudson	" R. F. D.	Beef cattle
H. J. Mobley	"	Beef cattle
J. J. Mitchell	Elfars	Beef cattle
J. H. Croft	Trilby	Beef cattle

PINELLAS COUNTY

Name	Address	Animals
Henry Belcher	St. Petersburg	Dairy cattle
D. E. Houser	"	Dairy cattle
P. L. Miller	"	Dairy cattle
D. L. Sellers	"	Dairy cattle
W. J. Wells	"	Dairy cattle
S. S. Coachman	Clearwater	Dairy cattle
J. B. Prevatt	Largo	Dairy cattle
C. S. Fulton	Tarpon Springs	Dairy cattle
Mr. J. M. Hood,	Oakland Dairy	St. Petersburg, Fla.
Mr. N. Vaughn,	Highland Dairy,	" " "
H. Belcher & Bro.	"	" " "
J. Tarbaugh	"	" " "
L. P. Miller,	"	" " "
J. Shaker	"	" " "
R. Templeton	"	" " "

POLK COUNTY

Name	Address	Animals
J. M. Keen	Lakeland	Beef cattle
F. I. Stone	Auburndale	Dairy cattle
W. H. Lewis	Ft. Meade	Beef cattle
R. G. Langford	"	Beef cattle
J. R. Davis	Bartow	Beef cattle and Poland Chinas
W. A. Lightsey	"	Beef cattle

POLK COUNTY—(Continued.)

Name.	Address	Animals
Geo. W. Mann	"	Beef cattle
Phelps & Morrison	"	Beef cattle
T. W. Page	"	Beef cattle
S. H. Page	"	Beef cattle
Jasper Summerlin	"	Beef cattle
C. M. Stidham	"	Beef cattle
E. E. Skipper	"	Beef cattle
M. D. Wilson	"	Beef cattle
N. F. Watts	"	Beef cattle

PUTNAM COUNTY

Name	Address	Animals
Eville Bros.	Palatka	Beef cattle
J. P. Newbeck	"	Beef cattle
W. G. Tilghman	"	Beef cattle
H. L. Chase	East Palatka	Dairy cattle
J. M. Park	"	Dairy cattle
G. C. Hardy	Florahome	Beef cattle
H. T. Mann	Mannville	Beef cattle

ST. JOHNS COUNTY

Name	Address	Animals
F. E. Bugbee	Hastings	Dairy and beef cattle
Ray M. Coe	"	Beef cattle
A. C. Dupont	"	Beef cattle
J. T. Hall	"	Dairy cattle
T. E. Mobley	"	Beef cattle

ST. LUCIE COUNTY

Name	Address	Animals
A. S. Cleveland	Ft. Pierce	Beef cattle
K. B. Rawlerson	"	Beef cattle

SANTA ROSA COUNTY

Name	Address	Animals
C. H. Simpson	Milton	Berkshires and Jerseys
B. D. Whitmyre	"	Beef cattle
C. E. Cassna	Santa Rosa	Aberdeen Angus

SUMTER COUNTY

Name	Address	Animals
J. M. Archibald	Center Hill	Hogs
T. Sutton Bevell	"	Beef cattle
Mrs. Mattie J. Bevell	"	Beef cattle
J. S. Dixon	Center Hill	Hogs
J. A. Kimbrough	"	Hogs
D. K. Kimbrough	"	Hogs
J. H. Merritt	"	Hogs
J. C. Smith	"	Beef cattle
R. B. Thompson	"	Beef cattle

SUMPTER COUNTY—(Continued.)

Name.	Address	Animals
Henry Beville	Bushnell	Beef cattle
T. L. Crum	"	Beef cattle
Chas. Crum	"	Hogs
T. W. Brown	Webster	Beef cattle
Jno. Grant	"	Beef cattle
G. M. Merritt	Linden	Beef cattle
D. C. Caruthers	Wildwood	Beef cattle
T. J. Bailly	Oxford	Beef cattle
Riley Drigers	"	Hogs
W. J. Russell	St. Catherine	Hogs

SUWANNE COUNTY

Name	Address	Animals
W. F. Branon	Live Oak	Hogs
B. F. Bird	Live Oak	Hogs
Frank Drew	"	Beef cattle
J. C. Henry	"	Duroc Jerseys
Harvard & Poteat	"	Dairy cattle
T. P. Hurst	"	Beef cattle
Jas. Smith	"	Beef cattle
Jasper Hart	Newburn	Beef cattle
S. M. Martin	Branford	Beef cattle
Mr. Bradford	Branford	Dairy cattle
Jas. Hodge	Dowling Park	Hogs

TAYLOR COUNTY

Name	Address	Animal
J. C. Calhoun	Perry	Beef cattle

VOLUSIA COUNTY

Name	Address	Animals
H. E. Z. Clifton	Spring Garden	Beef cattle
John Daugherty	"	Beef cattle
H. F. Lungren	"	Hogs
G. W. Tedder	"	Beef cattle
Tedder Bros.	"	Hogs
B. Jones	DeLeon Springs	Beef cattle
Perry Jones	"	Hogs
Frank Purdan	"	Hogs
Leonardy Bros.	Osteen	Beef cattle
K. B. Osteen	"	Beef cattle
J. L. Ditson	Glencoe	Beef cattle
W. A. McKinzie	"	Beef cattle and Hogs
J. E. J. Marsh	DeLand	Beef cattle
A. L. Marsh	"	Beef cattle
W. C. Painter	"	Beef cattle
J. Pollard	"	Dairy cattle
Mr. Ridgeway	"	Dairy cattle
John Dairs	New Smyrna	Dairy cattle
J. M. Tanner	"	Hogs
Hutchinson & Brittle	Daytona	Dairy cattle
S. E. Lemon	Barberville	Hogs

VOLUSIA COUNTY—(Continued.)

Name	Address	Animals
J. W. Minshew	"	Hogs
H. J. Montgomery	Oak Hill	Hogs
C. C. McKinzie	Lake Helen	Hogs

WAKULLA COUNTY

Name	Address	Animals
D. A. Danley	Wakulla	Beef cattle
Tate Hall	"	Beef cattle
S. L. Porter	"	Hogs
G. E. Reese	"	Hogs
Sam Brown	Sopchoppy	Beef cattle
W. H. Harnes	"	Dairy cattle
R. H. Raker	Crawfordville	Hogs
H. U. Walker	"	Beef cattle
J. C. Harvey	Arran	Beef cattle
C. C. Pelt	"	Beef cattle
C. B. Piyatt	"	Beef cattle
R. W. Ashmon	Benhaden	Beef cattle
T. H. McCallister	"	Beef cattle
F. J. Brown	Smith Creek	Hogs
Talley Brown	Sanborn	Hogs
T. H. Wieden	Sopchoppy	Hogs
Dan King	Luanna	Sheep

WALTON COUNTY

Name	Address	Animals
Wm. Murphy	Glendale	Beef cattle
L. A. Adams	"	Hogs
A. W. McCullough	"	Beef cattle
Z. S. Adams	Paxton	Hogs
H. J. Hallaway	"	Hogs
J. M. Bell	DeFuniak Springs	Beef cattle
D. M. Bell	"	Beef cattle
B. M. Bell	"	Hogs
T. J. Cawthon	"	Beef cattle and hogs
Hutch Cawthon	"	Beef cattle and sheep
D. C. Campbell	"	Jerseys
P. H. Fellows	"	Dairy cattle
Theodore McKinnin	"	Beef cattle
J. C. McMeen	"	Beef cattle
John McCollum	"	Sheep
John McSween	"	Sheep
P. W. Smith	"	Jerseys
N. G. Smith	"	Hogs
A. F. Bullard	"	Hogs
J. M. Goodwin	"	Hogs
Wesley Smith, Jr.	"	Hogs
J. R. Turner	"	Hogs
W. A. McCollum	Laurel Hill	Sheep
E. H. Miller	Freeport	Beef and sheep
P. Permitter	"	Beef cattle and hogs
J. E. Monroe	Darlington	Beef cattle

WALTON COUNTY—(Continued.)

Name.	Address	Animals
Alex Steele	Point Washington	Sheep
C. D. Meigs	Mossy Head	Sheep, beef cattle, hogs

WASHINGTON COUNTY

T. L. Wells	Chipley	Beef cattle
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ST. PETERSBURG MILK ORDINANCE

Ordinance No. 521.

An Ordinance regulating the sale of milk, cream and certain dairy products in the City of St. Petersburg, Florida, providing for an Inspector of milk, and does provide for a penalty for the violation thereof and the repeal of all ordinances in conflict herewith.

Now, therefore, the City of St. Petersburg, Does Ordain:

Section 1. That the Inspector of provisions, as created by Ordinance No. 423 of the Ordinances of the City of St. Petersburg, Florida, shall also be the inspector of milk, cream, and other dairy products brought into, sold, or offered for sale, or used in the City of St. Petersburg, Florida.

Section 2. Duties. It shall be the duty of the milk Inspector to inspect from time to time all dairies selling or supplying milk for sale in the City of St. Petersburg, Florida. He shall inspect the cows, the stables, drainage, ventilation, food, water, yards, pasture, methods of milking and all matters connected with the care and management of such dairy. He shall inspect all places and vehicles in or from which milk or cream is sold, offered or exposed for sale; kept, stored, delivered or disposed of; and restaurants, hotels, boarding houses; and all vessels, cans, receptacles, refrigerator, compartments of any store, building or any other place used in storing, handling, delivering, disposing of milk or cream in the City of St. Petersburg, Florida; to ascertain whether the provisions of this Ordinance are being complied with, and he shall have full police powers in the City of St. Petersburg, Florida.

Section 3. In order to make such inspection, he shall have the right to enter and shall have free access to any building, establishment, vehicles or place where such milk is produced or found, stored, kept or offered for sale, and he shall have the right to take samples of milk or cream, or other dairy products, therefrom, in quantities not to exceed one quart each, or one pound each, for the purpose of inspecting, testing, or analyzing the same.

Section 4. Permits (a) It shall be unlawful for any person or persons to bring, ship into or receive into the City of St. Petersburg, for sale or to sell or offer for sale therein, or have on hand for the purposes of sale, any milk or cream without first having obtained from the Clerk of the City of St. Petersburg, a permit to do so, as hereinafter provided; to procure such a permit, the applicant therefor shall file with the said City Food Inspector a written statement setting forth his residence, the number of cows owned by him, the name and address of any and all persons, from whom he is purchasing or obtaining milk, that he has complied with the provisions of this Ordinance and if such permit be granted, it shall be the duty of the holder thereof to notify the City Food Inspector in writing of any change in

the name or address of the person or persons, from whom he obtained his supply of milk.

(b) Said permit shall state that the holder thereof will comply with this or any other Ordinance of the City, and on a violation of any of its terms, his permit shall be revoked, and in the discretion of the City Commissioners. It shall be unlawful for any person or company to sell or furnish or have on hand for sale, in the City of St. Petersburg any milk after the revocation of the permit.

(c) All permits shall be renewed during the month of November of each year to be valid. Renewal of permits may be granted at the discretion and approval of the Pure Food Inspector after investigating the record of said applicant. Applicant paying one dollar (\$1) therefor.

Section 5. (a) Stables and sheds should be well drained and free from contaminating surroundings and so constructed as to be easily kept clean.

(b) Floors shall be tight, sound and of impervious material (concrete being preferable) and provided with a gutter behind the cows large enough to hold the droppings.

(c) No animal other than cows shall have access to or be kept in stables, barns, milking sheds or barnyards occupied by the milk cows.

Section 6. Sanitary Conditions. Barns, stables or milking sheds, shall be kept free from dust and cobwebs. Buildings should be whitewashed twice each year, or when Inspector directs.

Section 7. Barnyards. Feeding lots or corrals shall be well drained and kept clean and dry. Manure must be removed at least once daily, a distance of 200 feet from the buildings.

Section 8. Herd Requirements. The herd shall be examined frequently by a veterinarian under the direction of the City Food Inspector.

Section 9. Tuberculin Test Required of All Dairy Animals. It shall be unlawful for any person, firm, or corporation authorized under the provision of this Ordinance to operate or maintain a dairy for the production of milk, cream, or buttermilk for sale or other distribution in the City of St. Petersburg, Florida, to use the milk of or from any cow that has not been tuberculin tested by a veterinarian whose certificate is recognized by the City Commissioners. Every animal used in any dairy, the products of which are supplied to consumers in the City of St. Petersburg, or for the supply of said City, shall be tested with tuberculin once a year, and more often if it is deemed necessary by the City Food Inspector. All animals "reacting" to the tuberculin test shall at once be removed from the dairy herd and isolated and kept at some place that is satisfactory to the City Food Inspector of said City, under whose direction the work was done, until final disposition is made of such condemned animals. All "reactors" shall be condemned, and shall be marked by placing a metal tag in the right ear bearing the words, "St. Petersburg Dairy—Condemned," and bearing a serial number, and such animals shall be further marked by branding the same in a conspicuous place on the right side with the letters "T B" of not less than two inches in height. The tags and other marks of identification shall not be removed or obliterated by any person without being authorized to do so by the City Food Inspector. Animals found to be free from tuberculosis as determined by the tuberculin test shall have a metal tag placed in the left ear, bearing the words "St. Petersburg Dairy—Inspected," and bearing a serial number. It shall be unlawful to hinder, obstruct, delay, or prevent or to attempt to

hinder, obstruct, delay, or prevent the aforesaid officers in the duties required in carrying out the provisions of this section.

Section 10. Sanitary condition of Cows and Employees. Moistening the Hands with milk while milking is forbidden. Milkers and other employees shall wear clean outer garments, which shall be worn at no other time than while milking or handling milk, and they shall be kept in a clean place when not in use. Use of tobacco forbidden while handling milk.

Section 11. Milk when drawn shall be immediately removed from the stable or milking shed to the milk room or dairy building and immediately strained and cooled to a temperature of 50 degrees Fahrenheit, or less; at which temperature it shall be kept until delivered. Quantities less than 1 gallon shall be delivered in glass containers or containers recommended by the Inspector in charge.

Milk Room or dairy building shall be provided, which shall be located at a distance of 50 feet from the stable, barn or milking shed or dwelling and there shall be no hog pen, privy or manure pile within one hundred feet of it.

Construction. It shall be well lighted, ventilated, screened and have smooth, tight and well drained floors of concrete. The walls shall be smooth, tight and constructed of impervious material to a height of 4 feet from the floor. Ceiling shall be smooth and tight.

The Milk Room, or dairy building shall be equipped with facilities for the proper handling of milk. And it shall be used for no other purpose.

Section 13. Surface Closets Shall Be Flyproof. If Dairy is in an unsewered district there shall be fly proof closet construction as required by article 7, section 5, of the Sanitary Ordinances of the City of St. Petersburg, and employees or persons connected with the operation of said Dairy required to use same. No permit shall be issued for the operation of any Dairy if there exist within a radius of 500 feet of such Dairy a surface closet unless the same be constructed as provided in the ordinance, and subject to inspection and approval by the Pure Food Inspector.

Section 14. Utensils should be made of block tin, and free from rust. A double layer of finely meshed cheese cloth or muslin shall be used for straining the milk.

Small top milk pails so constructed as to prevent dirt from falling into the pail while milking shall be used.

All Utensils, Bottles and Other Containers shall be thoroughly cleaned immediately after using in such manner as required by Inspector.

Section 15. No Person who has been exposed within 10 days to any infectious or contagious disease shall be allowed in the stable or dairy building or to handle the milk, etc., until the City Physician certifies that it is safe for him to do so.

Section 16. Milk Depots. All milk depots and places for handling milk must be kept thoroughly clean throughout, and must be screened so as to exclude all flies. The floors of milk depots must be of solid cement.

Section 17. Must Be Free From Foreign Substances. It shall be unlawful for any person or persons to bring or receive into the City of St. Petersburg, for sale or to sell any milk, which contains any manner of dirt (that is, in quantity sufficient to be detected with the naked eye after milk has been standing for one hour or more.)

Section 18. Bottle Milk. It shall be unlawful for any dealer in milk or cream, or his agents, to bottle or cause to be bottled, or

to be placed in jars or cans, any part of his milk or cream supply, while upon the wagon, or at any other place than the dairy or milk depot.

Section 19. Milk Wagons. All vehicles used for hauling or distributing milk or cream must be kept neat and clean, and shall not be used for hauling of any material of an objectional nature, and must be provided with a covered top which will protect all vessels containing milk or cream from the rays of the sun. Must display name of Dairy and number of permit on both sides of vehicle.

Section 20. Milk Restrictions. It shall be unlawful for any person to sell or offer for sale within the limits of the City of St. Petersburg, any impure, adulterated, or unwholesome milk, or to sell or offer for sale as pure milk any milk, to which water or any other substance has been added, which in effect injures its quality, or lessens its value; or to sell or offer for sale the milk of any cow, that may be sick or diseased, or suffering from any bodily condition or disorder liable to render her milk unfit or unsafe to be used as food; or the milk obtained from a cow kept in a filthy stable or building, or in an offensively filthy lot, pen, or shed, that may affect the milk, so that consumers shall be exposed to the risk of sickness therefrom. No milk or cream shall be sold, kept offered or exposed for sale, stored, transported, exchanged, carried, delivered or in any manner disposed of, drawn from cows within 15 days before or 10 days after parturition, nor shall the same be mixed with any milk or cream for such purpose.

Section 21. Limit of Bacteria Contained. All milk brought into the City or sold or offered for sale in this City must not contain more than 50,000 bacteria per cubic centimeter, and kept at a temperature of 50 degrees.

Section 22. Milk shall contain not less than 8.5 per cent of solids not fat, and not less than 3.25 per cent of milk fat, with a specific gravity of 1.029 to 1.033.

Section 23. Skim milk is milk from which a part or all the cream has been removed and contains not less than 9.25 per cent solids and conforms to the requirement of whole milk as regards temperature and number of bacteria per cubic centimeter. Vessels must be labeled with red letters "Skimmed Milk." All pasturized milk shall be plainly marked on each bottle or other container in which such milk is delivered to consumers with a label bearing the inscription "pasturized milk" and the name of the firm, person, or corporation producing the same.

Section 24. Butter shall contain not less than 82.5 per cent of milk fat.

Section 25. Renovated Butter shall contain not more than 16 per cent water and at least 82.5 per cent milk fat.

No Adulteration Allowed—It shall be unlawful to sell, offer for sale, or have on hand for sale, any milk, cream, butter or cheese containing any preservatives of any kind, or adulterated milk, cream, butter or cheese.

Section 26. Samples Analyzed—If Adulterated, Prosecution—analysis—How Made. All samples of milk and cream and butter and cheese taken or brought to the office of the City Food Inspector shall be analyzed or otherwise satisfactorily tested as the City Food Inspector may deem necessary, and whenever said milk or cream and butter and cheese so tested or analyzed shall be found violative of the provisions of this ordinance, the necessary steps shall be taken for a prosecution of the offender thereof.

Section 27. No milk or cream shall in any manner be distrib-

uted from any infected premises until all danger of the spread of the disease shall be removed and the City Physician certifies to that effect in writing, to be filed in office of the City Food Inspector.

It shall be unlawful for any person to serve milk or cream to any dwelling that has in it any contagious disease or that is placarded for contagious disease, until such placard has been removed by proper authorities.

It shall be unlawful for any person to remove from any such dwelling any bottles or receptacles, which have been or are to be used for the purpose of receiving or storing milk or cream.

Section 29. It shall be unlawful for any person to sell, or have on hand for sale in this City any milk or butter, who fails or neglects, by himself or agents, to comply with all the terms of this ordinance, or who sells or offers for sale, or has on hand for sale, products from cows or dairies which are not maintained as required by the terms of this ordinance.

Copies of Above Provisions Displayed in Each Dairy. Copies of these provisions are to be printed and a copy of same delivered with each permit, or renewal of same, and said copy must be posted in a conspicuous place in the dairy or milk depot of party holding such permit.

Penalty for Violation of Milk Ordinance. Any person or persons who shall violate any of the above provisions, shall be deemed guilty of an offense, and upon conviction thereof in the Municipal Court shall be punished by a fine not less than \$5.00 and not exceeding \$100.00, or sentenced to work upon the public works for a term not exceeding ten days, one or both penalties to be indicted in the discretion of the Municipal Judge.

Passed on its first reading this 17th day of January, A. D. 1916.

Passed on its second reading this 3rd day of February, A. D.

1916.

Passed on its third reading this 3rd day of February, A. D.

1916.

J. G. BRADSHAW,
Commissioner.
T. J. NORTHRUP,
Commissioner.
C. D. HAMMOND,
Commissioner.

(Seal)

Attested by:

W. F. DIVINE, City Clerk.

St. Petersburg Meet Inspection Ordinance.

Ordinance No. 516.

An Ordinance Amending an Ordinance No. 423, of the Ordinances of the City of St. Petersburg, Florida, by providing for the Regulation of Slaughter Houses and the Inspection of all Meat or Meat Products Brought into the City of St. Petersburg, Florida.

The City of St. Petersburg does ordain:

That Ordinance No. 423, of the Ordinances of the City of St. Petersburg, Florida, shall be amended to include the following sections:

Regulation 1. Slaughtering Houses. Slaughtering shall not be conducted in the city of St. Petersburg unless the same shall be in a building constructed of wood, brick, rock, concrete or solid mate-

rial, the dimensions of which shall be not less than twelve feet square inside measure, twelve feet in height from floor to ceiling, disconnected from any store-room for hides by at least fifty feet and not less than 125 feet from any house, residence, water-closet, hog-pen or anything that might pollute the ground or atmosphere.

Regulation 2. Section 1. Slaughter Houses—Sanitation. Floor of all slaughter pens shall be sound and water tight, drained and sewer connected. When it is impossible to connect with sewer, then preparation must be made to carry all blood, offal, refuse or any other materials directly or indirectly from slaughtered animals by wagons, wheelbarrows or otherwise in water tight containers, to a place where said refuse may be buried or deposited at some place designated by Inspector or the Commissioner of Public Safety not less than 125 feet from slaughter pen, guarding against creating nuisance for the public.

Section 2. Walls of slaughter pens, meat dressing and cooling rooms must be tight and smooth, at least six feet above the floor with the exception of openings for doors and not exceeding three windows, if desired, which must be provided with glass or shutters and all openings screened with 18 mesh wire. All screen doors must be opened outside and all other doors must be provided with a swinging door to open in or out.

Section 3. Water must be provided in abundance and convenient to the building. If surface water is used, the well must be located not less than 125 feet from any source that might contaminate or pollute the water. It is desirable that running water be provided for all slaughter houses. An ample supply of water must be in the room, with soap and towels for cleaning the hands of all operators as well as instruments and any emergencies that might arise.

Section 4. All wood work except the floor shall be kept white. By an application of plant, whitewash, enamel or calcimine. The floor and all instruments, hooks etc., that touch the meat must be cleaned daily with hot water and soap or lye. All openings must be provided with ample protection against dust and insects.

Section 5. All livers, lungs, (lights), spleens (melts) and tongues of all animals slaughtered at any abattoir or slaughter house within the municipality shall be hung on racks provided for that purpose, immediately after slaughtering and removed from the carcasses of the animals, and shall there remain until the Pure Food Inspector or his assistants shall have examined and inspected the same and shall not be removed therefrom except by permission of said inspector. And all such organs shall be marked by the butchers in placing them on the rack in such a manner that the said organs can be easily identified with the carcasses from which they have been removed.

Section 6. At least one inch of the diaphragm or skirt of all carcasses of all slaughtered animals shall be left on the animal slaughtered until the Pure Food Inspector shall have examined, inspected and passed the same and that the parietal pleura or the lining of the chest cavity and the parietal peritoneum or casing of the abdominal cavity ordinarily removed in the process commonly known as "stripping," shall be allowed to remain upon the carcasses, and shall not be removed therefrom until after the inspection by the Pure Food Inspector.

Section 7. No person shall urinate, defecate or commit any nuisance whatsoever in the slaughtering pens of any abattoir or slaughter house or within 125 feet thereto.

Section 8. In no case shall the premises used for the slaughtering of animals or preparation of animal food, remain uncleared for a period 12 hours.

Section 9. The practice of emptying the contents of the digestive organs on the floors of the slaughtering pens is prohibited.

Section 10. Refuse. Scraps of meat, offal, bones, and other organic matter shall not be left exposed to the atmosphere of the room, but must be kept in a closed receptacle, which must be emptied at least once daily. Also the meat for sale shall not be kept exposed to the air except in such quantities as are needed for immediate use but it shall be kept in refrigerators or ice chests.

Section 11. All slaughter houses, abattoirs, live stock landings and pens or other places for the keeping, preserving or slaughtering animals intended for food shall be provided with adequate pumps and water pipes, also an abundant supply of water, cold and warm, for flushing and daily washing, and keeping clean and sanitary such places, also with large closed pipes leading to sewer or septic tank or into such other place of reception as the Inspector or Commissioner of Public Safety may direct.

Section 12. Buildings used for the purpose of slaughtering and dressing poultry and other fowls shall be properly equipped and operated in a sanitary manner so as to be approved by the Pure Food Inspector.

Section 13. No person shall sell or offer for sale within the City Limits or otherwise dispose of for human food therein any carcasses or part thereof which does not bear the inspection brand or other mark of identification of the U. S. Department of Agriculture or has been inspected and stamped by the Pure Food Inspector or his assistants.

Section 14. The Pure Food Inspector and his assistants may enter any slaughter house or premises within or without the City Limits where live stock are slaughtered or where poultry or fish are dressed or prepared for human food, for consumption within City Limits.

Section 15. No carcass or part thereof of any slaughtered animal shall be branded or otherwise marked for identification by the Pure Food Inspector or his assistants, until it has been carefully inspected and passed for food; and the viscera, head, tongue, tail and caul of each and every animal slaughtered when the Inspector is not present shall be kept together and wholly separate from similar parts of the carcasses. And no person or persons shall destroy, deface, conceal, interfere with, or remove any label affixed by any Inspector or officer of this board, as aforesaid.

Section 16. Affected Animals and Carcasses to be Condemned. All animals found not to meet the requirements of the Federal meat inspection law in U. S. and recommended by Bureau of Animal Industry shall be condemned by the Pure Food Inspector or his assistants.

Regulation 3. Condemned—Disposition. Should the carcass of any animal, on post-mortem examination be found diseased or otherwise unfit for food, it shall be marked with a condemnation tag and its organs and removed parts shall be likewise marked, and no part thereof shall be sold for food. Where rendering tanks are operated, all condemned carcasses and parts shall be placed in a tank, and treated in such manner as to destroy the meat for purposes of food, under the direction of the Pure Food Inspector or his assistants. Such tanks may not be required and in such cases, all carcasses or parts condemned shall be removed from the premises under special permit therefor from the Inspector, who shall see that the carcasses and parts so condemned are either destroyed or used for purposes other than food.

Regulation 4. Section 1. Preservatives. The only preservatives to be used in or upon said meat, or to be kept or stored in or

around said slaughter houses, shall be salt, sugar, vinegar, pure spices or wood smoke.

Regulation 5. Persons Afflicted With Disease not to be Employed. No person suffering from a contagious or infectious disease shall be employed in slaughtering houses in this City, nor shall any convalescent from diphtheria, pneumonia, variola, or typhoid, be employed until permission is granted the City Physician.

Regulation 6. Section 12. Slaughter Houses Outside of City—Regulations—Inspection of Carcasses, Slaughter houses or abattoirs operated without the City Limits, but which dispose of their meat products within City Limits, shall obtain permit and conform to the same regulations as required of such establishments within City Limits. Carcasses, before being sold within City Limits, shall be inspected and branded by U. S. Inspector or otherwise marked for identification, by the Pure Food Inspector or his assistants under the following rule, to-wit: All carcasses must have the head and all viscera except the stomach, bladder and intestines, held together by natural attachments and all such carcasses shall be brought to the City Hall between the hours of 7:00 a. m. and 9:00 a. m. of each week day, or to some other place or time designated by the Inspector or Commissioner of Public Safety. The Pure Food Inspector shall be notified one day prior thereto when such carcasses are to be inspected.

Regulation 7. Permits. Slaughterers shall obtain permit from City Clerk. It shall be unlawful for any person to operate a slaughtering establishment for live stock without first having obtained a permit from the City Clerk for such permit the applicant shall pay annually to the City Clerk the sum of five (\$5.00) Dollars. Said permit shall state that the licensee will comply with the ordinances of the City and on violation of any of its provisions his license shall be revoked in the discretion of the Board of Commissioners. To procure such permit the applicant therefor shall file with the Pure Food Inspector a written statement setting forth his residence and the place where the animals are proposed to be slaughtered. Said Inspector shall then visit such premises and when said premises conform to the requirements of the City, shall approve the application.

Regulation 8. All ordinances and parts of ordinances in conflict herewith are hereby repealed.

Penalty. Any person violating any of the provisions of this Ordinance, or neglecting, or refusing to comply therewith, shall, on conviction, be punished by a fine not exceeding Fifty (\$50.00) Dollars or by imprisonment not exceeding Twenty-five (25) days, or both such fine and imprisonment.

Passed on its first reading this 26th day of November, A. D. 1915, and published in the Evening Independent, a newspaper, published in the City of St. Petersburg, Florida.

Passed on its second reading this 13th day of December, A. D. 1915.

Passed on its third reading this 13th day of December, A. D. 1915, published in the Evening Independent, published in the City of St. Petersburg, Florida.

J. G. BRADSHAW, Commissioner.
T. J. NORTHROP, Commissioner.
C. D. HAMMOND, Commissioner.

(SEAL)

Attested by:

W. F. DIVINE City Clerk.
Ind Nov. 26, Dec. 11-15.

REPORT OF DR. W. A. MUNSELL.

Assistant Veterinarian.

Green Cove Springs, Florida, Jan. 1, 1916

Dr. Joseph Y. Porter,

State Health Officer,

Jacksonville, Florida.

Dear Doctor:—I herewith submit a report of my services as Assistant Veterinarian for the year 1915. The nature of the work is more varied than heretofore and is developing along sanitary lines such as: Dairy Inspection, Cattle Testing and Feeding. The number of glanders cases are appreciably less, but we are still confronted with cases of various forms of food and forage poison, the direct cause of which we are endeavoring to trace and report, in detail, at another time.

Respectfully submitted,

W. A. MUNSELL,

Assistant Veterinarian.

WORK WITH HOGS, SHEEP AND GOATS.

Date	Place	Owner	Object.
Jan. 25,	Tallahassee		Double treatment hog cholera
Jan. 27,	Grand Ridge	J. M. Singletary	Double treated 25 hogs
Feb. 19,	Sanford	Seth Woodruff	Single treated 11 hogs
Apr. 11,	Wallkill	V. G. Hall	Double treated 12 hogs
Apr. 30,	Kenwood	Geo. Schaffer	Single treated 20 hogs
Jul. 24,	DeLeon Sp'gs	DeLeon Sp'gs. Shell Co	Investigated cause of losses—Intestinal Parasites.
Sep. 22,	Rideout	J. M. Mosley	Single treated 53 hogs
		GOATS	
Feb. 23,	Juliette	F. E. Kempfill	Infectious abortion in Goats
May 21,	Earlton	L. M. Fouts	Parasites and Forage poison
July 22,	Kissimmee	C. A. Carson	Intestinal parasites in sheep

INVESTIGATION OF HORSE DISEASES

Date	Place	Owner	Diagnosis
Feb. 21,	Interlachen	C. E. Currie	Intestinal Parasite
Feb. 22,	Tallahassee	T. Atkinson	Influenza.
Feb. 24,	Oxford	G. B. Kenard	Stagger—Food Poison
Mar. 13,	Durbin	J. A. Miller	Stagger—Food Poison
Apr. 27,	Live Oak	Livery Stables	Influenza
May 17,	Longwood	R. A. Jenkins	Malignant Oedema.
May 22,	Hardee	D. W. Lewis	Staggers—Forage Poison

INVESTIGATION OF HORSES DISEASES—(Continued)

Date	Place	Owner	Diagnosis
June 7, Kathleen		J. H. Turledge	Staggers—Forage Poison
June 17, Jacksonville		Covington Co.	Glanders test—negative
Aug. 31 St. Augustine		Livery Stables	Staggers—Forage Poison
Sept. 13, Okahumpka		A. R. Knight	Staggers—Forage Poison
Oct. 20, Sebring		L. Mercer	No diagnosis
Nov. 4, Dade City		J. H. Revels	Septicaemia

INVESTIGATION OF CATTLE DISEASES

Date	Place	Owner	Diagnosis
Mar. 3, Graceville		M. L. Collins	Acute Indigestion
May 7, Kissimmee		Cobb & Derby	Dipping and shipping cattle to York, Ala.
May 10, Lloyd		S. I. Coxetter	Forage Poison and acute indigestion
May 26, Tavares		Consultation with County	Agent relative to Tuberculosis test
May 29, Newberry		J. W. Tompkins	Food Poison
June 9, Kissimmee		Cobb & Derby	Dipping and shipping cattle to York, Ala.
June 10, Pine Castle		C. L. Johns	Tick Fever
June 15, DeLand		Dr. Davis	Inspecting Dairies
June 20, Bonifay		W. A. Sessoms	Food Poison and acute indigestion
July 19, Palm Beach		Attending Tick Eradication Meeting, Chamber of Commerce	
July 28, Hastings		F. E. Bugbee	Mammitis
July 29, Raiford		State Farm	Tick Fever
Aug. 5-7, Tallahassee		Miles Johnson	Vaccination against anthrax
Aug. 11, Ocala		Marion Co. Farms	Snake bite or forage poison.
Aug. 14-19, Raiford		State Farm	Constructing dipping vat.
Aug. 26, Fort Pierce		E. G. Cleveland	Inspect dairy and test dip
Sept. 24, Kissimmee		J. McElroy	Dipping and shipping 916 cattle to Odessa, Texas.
Oct. 24, Jacksonville		J. R. Stirrup	Dipping and shipping 9 cows to Cocoa, Fla.
Nov. 3, Center Hill		J. S. Smith	Food Poison and acute indigestion.
Nov. 5-7, Sarasota		Palmer-Florida Co.	Preparing solution and demonstrating dipping.
Nov. 13, Chipley		H. L. Williams	Tick Fever
Dec. 12, Micanopy		J. B. Simonton	Sporadic Abortion
Dec. 22, Jacksonville		Union Stock Yards	Preparing dipping solution
Dec. 27, Jacksonville		Union Stock Yards	Dipping cattle

REPORT OF DR. J. W. DE MILLY.

Assistant Veterinarian.

Tallahassee, Florida, January 1, 1916.

Dr. Joseph Y. Porter,

State Health Officer,

Jacksonville, Florida.

Dear Doctor:—I beg to admit herewith in chronological order a report of my work as assistant veterinarian for the spring and summer of 1915:

During April and May I was retained in Tallahassee assisting Doctor Porter;

May 30th and 31st: Detailed to Midway to test two horses for glanders; tests were negative;

June 1st and 2nd: Visited herd of cattle of F. B. Winthrop, near Tallahassee, to investigate the cause of death of one steer and sickness of several others; diagnosed as Texas Fever;

June 5th: Visited herd of cattle of M. H. Johnson, Jr., of Tallahassee, for above reasons diagnosed as Texas Fever; these were cows that had been bought from parties who had kept them up in small pens until grown and had never been tick infected until sold;

June 11th, and 13th: Detailed to Trenton to investigate what was supposed to be an infectious disease in a herd of cattle belonging to Wade and Bell; diagnosed as digestive disturbance;

July 14: Detailed to Ocklocknee Brick Co., Ocklocknee, upon vat construction;

June 28th to 30th: Detailed to Zephyrhills to test one horse for glanders; case reported by Dr. W. C. Rice; test negative;

July 1st and 4th: Detailed to Orlando to test horse belonging to D. S. Locke, for glanders; case reported by a local veterinarian; which had died prior to my arrival; the mallein test was applied to six horses which had been exposed, as follows: Mr. Arnold, two; Mr. Locke, one; Mr. Needles, two; and Mrs. Hayes, one; all tests were negative;

July 7th: Filled dipping vat for Mr. M. H. Johnson, Jr.: also refilled dipping vat at Tallahassee;

July 10th: Administered 1500 c. c. hog-cholera serum for Mr. E. W. Wiggins, near Tallahassee;

July 16th: Discovered an outbreak of anthrax on Virgil Speed's (colored) place, near Tallahassee, which consumed my time up to the 26th;

July 26th and 27th: Detailed to Mr. W. H. Stoutamire's place near Telogia; vat construction;

July 29th and 30th: Detailed to Bonifay to investigate a case of supposed glanders reported by Dr. Gable; animal was found dead upon arrival; examination and history did not indicate glanders; carcass was ordered buried;

August 1st and 17th: At Tallahassee, on anthrax, the disease having spread to M. H. Johnson's, Jr., place;

August 18th and 19th: Detailed to River Junction; from there to Grand Ridge to investigate a report of Foot-and-Mouth Disease, reported by Mr. A. D. Eldridge, which proved to be a sore on the tongue, caused by a sharp object of some kind;

August 25th and 26th: Returned to W. H. Stoutamire's at Telogia to fill vat and superintend dipping; administered hog-cholera serum to herd of hogs for Eph McQueen, near Tallahassee;

September 1st and 2nd: Detailed to Jasper to fill vat for Mr. Roy Adams and superintend dipping;

September 3rd: Was called to office at Jacksonville to confer on some matters pertaining to the veterinary work.

Respectfully submitted,

J. W. DeMILLY,

Assistant Veterinarian.

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